



The Whole System Is Stuck in The "Iron Cage of Consumerism"

Individual Level

In today's busy lives, food is reduced to convenience, quick, impulsive, and shaped by personal routines and economic limits. Strong territorial habits around taste, diet, and budget make sharing difficult, while systems prioritise speed over intention, making mindful or collective consumption feel burdensome and out of reach.

Household Level

In co-living households shaped by economic constraints, people share space but not systems. Food becomes a site of tension; territorial habits, financial sensitivity, and mismatched routines turn kitchens into quiet battlegrounds. Emotional connection is rare, and collaboration is undermined by the lack of trust, structure, and shared responsibility.

Retail Industry Level

The retail industry focus on maximising sales with **standardisation**, **abundance**, **and constant availability**. Business models prioritise convenience and profit, driving overproduction and excessive packaging. Stock is filled to stimulate demand, not match actual need. **Efficiency and growth metrics** dominate the industry's success.

Social & National Level

At the national level, success is measured by GDP, consumption, and market growth. Social norms focus on abundance and individual ownership. Collective ecological limits are sidelined. Sustainability efforts are fragmented and often treated as consumer choice rather than systemic change. The result is a society wired to consume.

Transition Pathway toward future

Near Term 5-10 years



Nudging Change within Legacy

Mid Term



Slowing Down the Consumption

LongTerm

20-30 years



Hyperlocal and Regenerative Economy

Ownership in the Packaged Food Lifecycle

Mapping Stakeholders by Ownership Influence and Systemic Interdependencies

We created a detailed system map to visualise how ownership is produced, distributed, and transformed across the lifecycle of packaged food. The map identifies key stakeholder groups – from producers and retailers to consumers, community fridges, and policymakers – and locates them within four lifecycle stages:

- 1. Production & Packaging Design,
- 2. Retail & Distribution,
- 3. Consumption & Use,
- 4. Post-Use & Redistribution.

We analysed their types of ownership influence (structural, individual, psychological), relative power, and how ownership is transferred, institutionalised, or challenged through systemic flows.

We wanted to move beyond viewing ownership as an individual attitude, and instead reveal it as a systemic condition shaped by roles, rules, and relationships. By mapping how ownership flows and transforms between stakeholders, we could identify critical leverage points for design interventions.

This approach helps surface the complexity of shared responsibility in FMCG systems, highlighting how interventions must align with existing power structures and enable collaborative forms of ownership to scale.

Dominant Ownership Influence

what type of ownership they shape

Structural Ownership

Functional Ownership

Focused on use and control—the ability to access, manipulate, and benefit from the object.

Psychological Ownership

loated in amotional attachment, perceived responsibility, and the sense of possession.

Level of Influence or Power

how much influence they have over ownership in the system







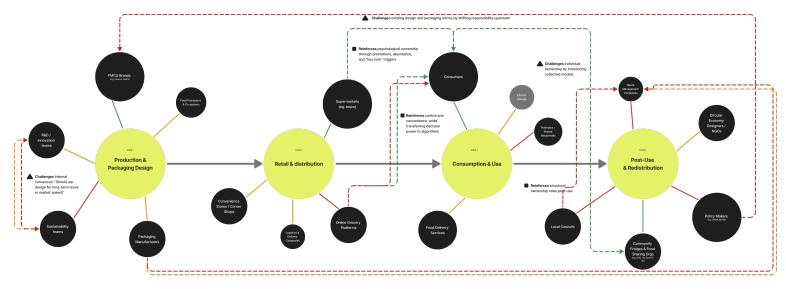
Influence Flows

Connections where ownership is transferred, reinforced, or challenged

Transferred Ownership- passed on between stakeholders

Reinforced ownership - upneld or repeated by systems and cues

▲ Challenged ownership - disrupted or redefined through new mode



 Transfers ownership of materials at end-of-life — affects what consumers and waste systems can do with packaging.

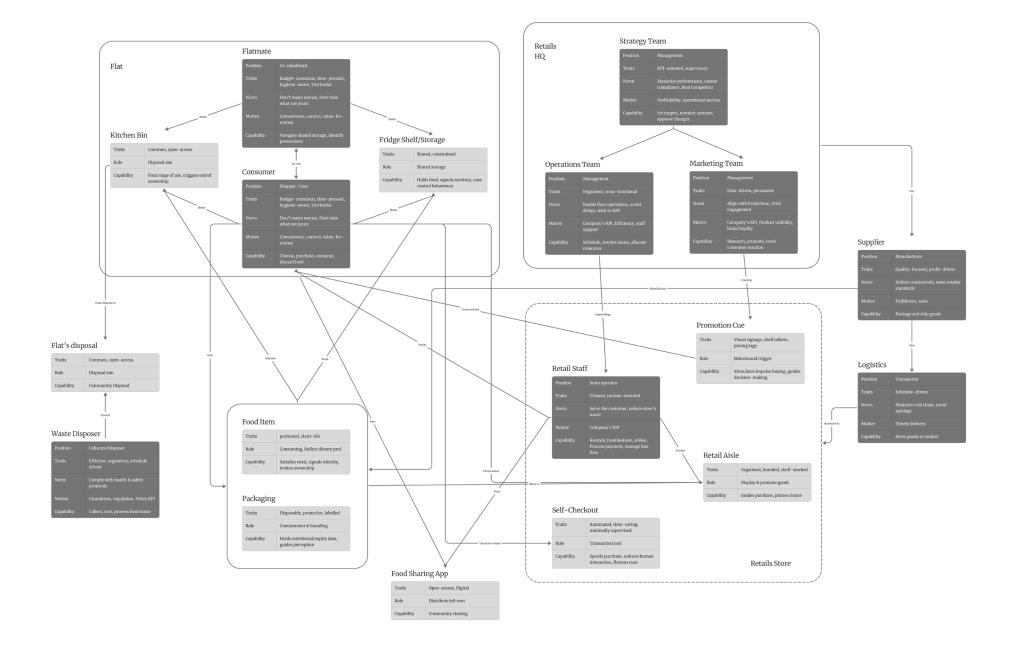
Behaviour Setting Map

Analysing roles, norms, and artefacts shaping ownership in context

We used Behaviour Setting Theory to map the social, physical, and normative environments in which ownership behaviours occur across the packaged food lifecycle. We detailed roles (e.g. consumer, flatmate, retail staff), norms (e.g. self-monitoring, deal-seeking), motives, and artefacts (e.g. fridge, packaging, checkout) in contexts from shared flats to retail stores to disposal points. This visual map made explicit the distributed nature of ownership practices and the shared routines that structure them.

We wanted to move beyond viewing ownership as an individual attitude, and instead reveal it as a systemic condition shaped by roles, rules, and relationships. By mapping how ownership flows and transforms between stakeholders, we could identify critical leverage points for design interventions.

By mapping these settings, we could see how ownership is fragmented, negotiated, or institutionalised, revealing the system-level barriers within the retail that are preventing the transition towards a more collective, sustainable models.

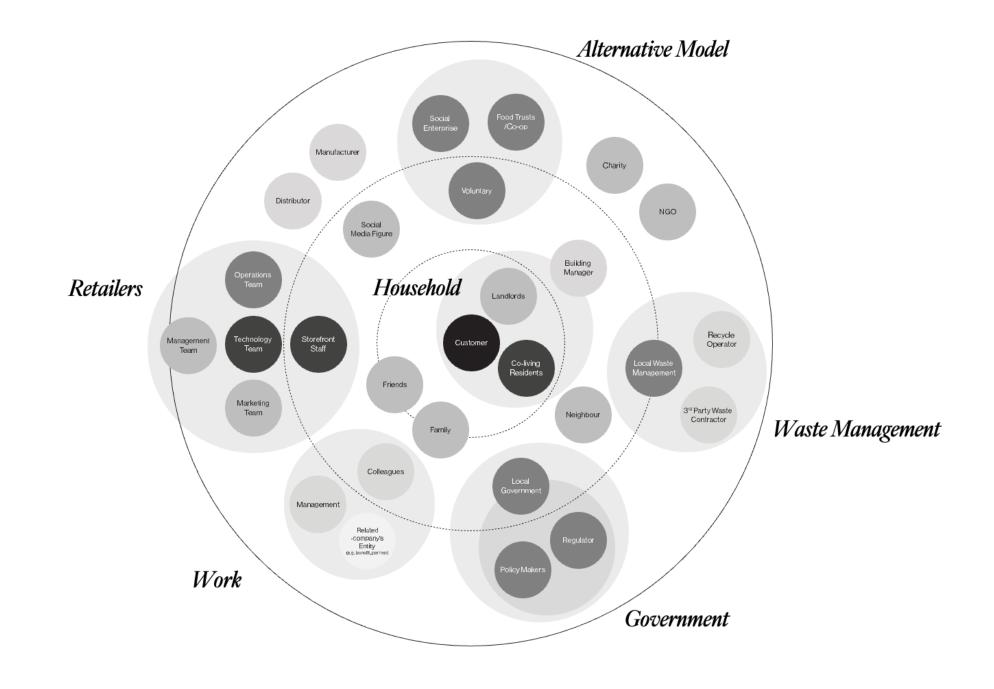


Stakeholder Ecology Map

Positioning household ownership within a wider system of actors

We created a stakeholder ecology map that positions the customer and household within a broader ecosystem of actors influencing food ownership practices. This included retailers (management, marketing, operations, storefront staff), waste management entities, government regulators, landlords, co-living residents, social enterprises, NGOs, and voluntary initiatives. We used concentric layers to illustrate proximity and relational influence on the customer's experience of ownership.

By visualising this ecology, we could see how retailers, policy-makers, local government, and alternative models all play roles in enabling or constraining shared responsibility. This approach supported a more holistic, systemic framing of our design challenge – emphasising that shifting ownership models requires cross-sector collaboration, not just consumer behaviour change.

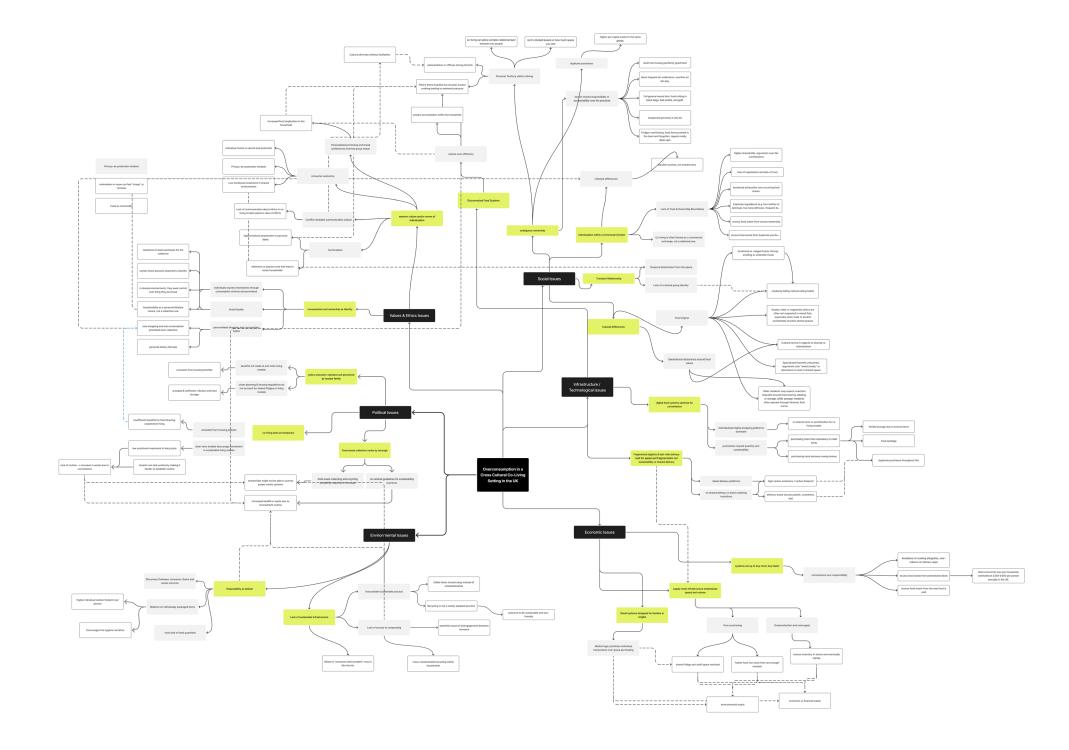


Wicked Problems Map

Mapping the interconnected drivers of overconsumption

We built a Wicked Problems Map to surface and connect the complex, interdependent drivers of overconsumption and waste in packaged food systems. This mapping exercise identified factors spanning social norms, retail incentives, packaging design, infrastructure constraints, and individual behaviours.

By visualising these interrelations, we made visible the complexity and entanglement of the problem space. We wanted to expose the full complexity of the challenge, showing how factors like retail incentives, social norms, and infrastructure reinforce each other. This helped us avoid simplistic solutions and frame the problem as truly systemic.



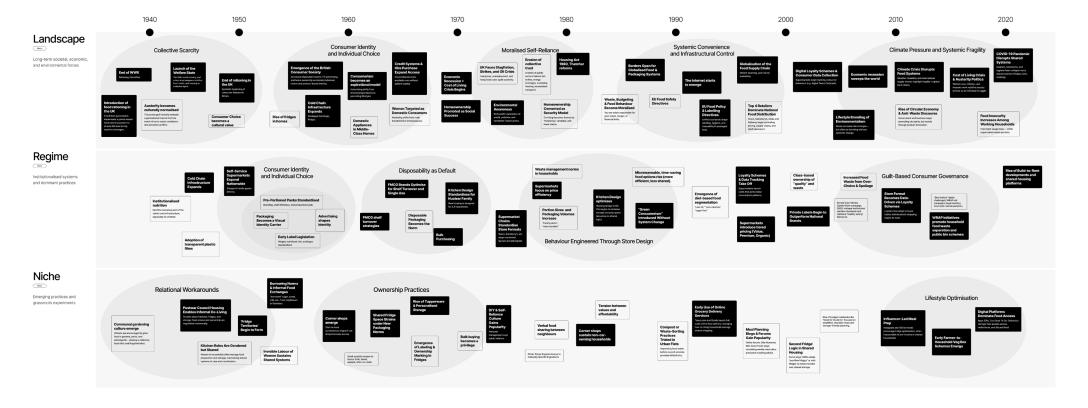
The Multi-Level Perspective Map

Situating ownership practices within socio-technical transitions

We applied the Multi-Level Perspective (MLP) framework to analyse how ownership practices in food consumption have evolved over time across three levels:

- **1. Landscape** (broad cultural and societal trends),
- **2. Regime** (dominant systems and infrastructures), and
- **3. Niche** (emerging innovations and alternatives).

We created a timeline to track these shifts from the 1940s to today. We aimed to understand how ownership norms and systems evolved over time. By placing current practices in historical context, we could see why certain behaviours persist and identify moments when meaningful change became possible.



Primary Event Cluster

Nuclear Family & Co-Living Journey Maps

Comparing grocery behaviours across living contexts

Our MLP (Multi-Level Perspective) analysis revealed the nuclear family as a dominant model that has historically shaped mainstream food systems – driving packaging formats, retail design, and shopping behaviours optimised for predictable, centralised household coordination.

To better understand the real-world implications of this legacy, we mapped and compared grocery journeys in both nuclear family and co-living contexts.

This allowed us to see how ownership norms and routines that work well in a family setting can break down in shared living arrangements, leading to frictions like territorial behaviour, spoilage, and waste.

Nuclear Family's grocery journey

Theme: Predictable Routine | Embedded Cure | Centralised Coordination | Shared Tools & Infrastructure | Planned Consumptio Characteristic Lines flow | Family-scaled | Emotionally bonded |
Posture: Coordinated | Attentive | Practical | Nurturing | Rhythmic |
Mindest Efficiency | Stability | Bonding |



Co-living's grocery journey

Theme: Fragmented Flow / Territorial / Impulse-Driven / Emotional Avoidance / Social Tension / Disconnection / Convenience over econo

Characteristic: Non-linear / Individual-probled (Low superpositation / Short-term (Low superpositation / Shor

Posture: Reactive / Sheltered / Adaptive / Detached

Mindset: Autonomy / Survival / Rules-driven / Minimal investment / Economic yet convenience











Insight Codification

Thematic analysis of challenges and behaviours

We aimed to move from raw interview data to structured insights that could inform design. By codifying themes across participants, we identified patterns of shared pain points and systemic barriers that interventions would need to address to make collaborative ownership viable.



INTERVIEW 1

1. Kitchen Cleanliness and Hygiene

Top frustration repeatedly mentioned.

Issues with dirty dishes left in the sink or dishwasher, unclean surfaces, and lack of follow-through on cleaning

This directly affects the interviewee's ability and willingness to cook, impacting both their lifestyle and budget.

"It would just deter me from wanting to cook... I used to work in a professional kitchen where standards of cleanliness are high."

2. Lack of Accountability and Shared Responsibility

Problems like spoiled or forgotten food, unclean kitchenware, and overpacked fridge often go unaddressed.

Frustration stems from the fact that no one takes ownership of communal issues, and reminders or group chat messages result in only temporary improvement

"No one takes accountability for it and you're just left wondering...

3. Limited Space and Food Storage Challenges

The shared fridge is small for five people, leading to crowding, forgotten items, and food waste.

Difficulty in maintaining organised, hygienic storage, especially when others don't follow the same standards or systems.

INTERVIEW 2

1. Food Waste from Over-Cooking or Repetition Fatigue

Even though meals are generally well-planned, leftovers occasionally go uneaten when they grow tired of eating the same dish multible days in a row.

This leads to guilt and regret, especially when food ends up

"We probably get sick of it... so we store it in our bowl, and it goes at the back of the fridge eventually... that had happened."

2. Excessive Food Packaging and Retail Waste

Strong frustration with the amount of unnecessary packaging in grocery retail (e.g., plastic on onions).

Feels environmentally guilty and constrained by a system that doesn't enable sustainable choices.

"Even normal food... why does there have to be a cover for three onions?"

3. Difficulty Predicting Portion Sizes When Co-Cooking

Cooking for two leads to larger quantities, and it's harder to estimate how much food will be eaten.

Unlike living alone (where they can skip meals), co-living creates a pressure to cook more to accommodate both people.

"You can't calculate the quantity of food you're cooking when you're living with people."

INTERVIEW 3

1. Food Waste Due to Over-Preparation and Portion Misjudgment

Struggled early on with cooking too much food or getting bored of batch-cooked meals.

Led to food spoilage and emotional overwhelm.

This caused breakdowns and temporary avoidance of the kitchen.

"I used to make a whole batch... and by the end of it, I'd be like, 'Is this sour?'...
many times I just couldn't eat it."

2. Poorly Sized Packaging for Single-Person Households

Items like bread are packaged in quantities too large for one person, resulting in regular waste.

Frustrated that many retail products seem designed for multi-person households.

"Especially the bread situation... I stopped getting it because it was just wasting too much."

3. Misaligned Food Preferences and Shared Item Inefficiency

Initially tried to share basic items like oil and bread, but differences in dietary needs and preferences (e.g., white vs. brown bread, types of oil) led to duplicated purchases and wasted resources.

This reflects a lack of practicality in shared ownership for certain staples.

INTERVIEW 4

1. Inflexible Retail Packaging

Forced to buy more than needed (e.g., full packs of bread or basil) due to lack of portion-sized options.

Leads directly to food and packaging waste.

"You have to buy a whole pack... I just want one piece."

2. Lack of Accountability and Shared Responsibility

Particularly annoyed by plastic on produce with natural coverings (e.g., garlic, apples).

Wants plastic-free alternatives but finds them rare or unavailable.

"Garlic is already protected the way it is... why is there an extra layer?"

3. Limited Space and Food Storage Challenges

Tries to recycle and separate waste, but feels the city's systems don't follow through, creating doubt and discouragement.

"Even if I separate plastic and perishable waste... I don't think they're collected that way."

INTERVIEW 5

1. Inflexible Packaging and Quantity Constraints

Cannot buy the exact quantity of fresh produce needed

Forced to over-purchase due to standard packaging, which

"You need one... but it comes in a pack of eight."

2. Shared Fridge Hygiene and Organisation

Frustrated by lack of cleanliness, labeling, and order in the

Concerns about cross-contamination between raw and

(uccerecommunity) Shared maintenance is reactive, not proactive.

"We only raise red flags when we smell something sour."

3. Waste from Limited Storage and Time

Lack of fridge space and busy schedules make it hard to store or prepare food, which sometimes leads to spoilage.

Feels resigned to this cycle, viewing it as inevitable rather than something they can control.

"I can't do anything about it... I just throw it away."

CULTURAL & EMOTIONAL VALUES

CULTURAL CONFLICT

- Issues with flatmates leads to participants ability and willingness to cook impacting lifestyle and budget.
- Due to quantity of food purchased and made, forced to eat the same thing over and over as to not waste food.

PERSONAL HYGIENE

- Not eating quantities of food made due to emotional burnout led to food waste and quilt
- resigned to food waste when products go bad and cannot use

RETAIL PACKAGING & DESIGN

INFLEXIBLE PACKAGING

- Dirty dishes left in sink or dishwasher, unclean surfaces and lack of follow through on cleaning responsibilities
- Difficulty in maintaining organised, hygienic storage when other's do not follow the same habits

PORTION MISMATCH

- Inital trial of sharing basic items but unfit for different lifestyles and eating habite.
- Frustration with housemates leads to confrontation and temporary improvement but not long term habit change

RETAIL OVERPORTIONING

- Spoiled or forgotten food in overpacked fridge often goes unaddressed unsure ownership
- "red flags are only raised when something smells sour"

INFRASTRUCTURE BARRIERS

FRIDGE CONGESTION

- Dirty dishes left in sink or dishwasher, unclean surfaces and lack of follow through on cleaning responsibilities
- Difficulty in maintaining organised, hygienic storage when other's do not follow the same habits

TEMPORARY COMPLIANCE

- Initial trial of sharing basic items but unfit for different lifestyles and eating habits
- Frustration with housemates leads to confrontation and temporary improvement but not long term habit change.

LACK OF ACCOUNTABILITY

Spoiled or forgotten food in overpacked fridge often goes unaddressed unsure ownership.

FOOD WASTE

EMOTIONAL BURNOUT

- Issues with flatmates leads to participants ability and willingness to cook impacting lifestyle and budget.
- Due to quantity of food purchased and made, forced to eat the same thing over and over as to not waste food.
 Spoilage of food led to breakdowns and temporary avoidance of
- Spoilage of food led to breakdowns and temporary avoidance of kitchen.

WASTE GUILT

- Not eating quantities of food made due to emotional burnout led to food waste and guilt
- resigned to food waste when products go bad and cannot use

SHARED RESPONSIBILITY

- MISALIGNED HABITS
 Dirty dishes left in sink or dishwasher, unclean surfaces and lack of follow through on cleaning responsibilities
- Difficulty in maintaining organised, hygienic storage when other's do not follow the same habits

TEMPORARY COMPLIANCE

- Initial trial of sharing basic items but unfit for different lifestyles and
- Frustration with housemates leads to confrontation and temporary improvement but not long term habit change.

LACK OF ACCOUNTABILITY

 Spoiled or forgotten food in overpacked fridge often goes unaddressed unsure ownership.

SHOPPING EXPERIENCE

- Smart Storefronts: Personalised recommendations, small front, big smart backend.
- Data-Driven Subscriptions: Auto-suggested shopping lists based on past behaviour and fridge content.
- Meal-Based Layouts: Shelves organised by meal type or urgency.

 Vending Machine Models: Large vending-wall systems that

display expiring deals.

Shared Ingredient Buddy System: Customers buying large packs can instantly see who else is buying the same item and

SMART TECHNOLOGY INTEGRATION

- Fridge Sync Apps: View contents remotely, reduce
- Expiration Trackers: Alert users based on shelf life.

 Food Diary Integration: Nutrition and consumption data
 - Allergy & Restriction Sync: Personal preferences affect shopping guidance
- Fridge with Food Tracking: A smart fridge that tracks items by shelf life and dietary restrictions.

SUSTAINABILITY & CIRCULARITY

- Composting Stations: Accept food scraps in exchange for
- Organic Garden + Compost Loop: Customers drop off compost, which supports in-store gardens. Option to take
- In-Store Gardens: Compost supports organic produce; sablings given to customers.
- Jar Return/Refill Models: Bring your own jars or borrow and
- Shelf Life-Based Pricing: Prices decrease as food approaches expiry; loyal or premium users get early access to discounts.

PACKAGING & PRODUCT DESIGN

- Minimal Choice Display: Just one quality option per staple.
- Smaller Pack Sizes: Individual-use portions (e.g., mini sauces).
- Post-Open Instructions: What to do after opening (e.g., freeze.
- Health-Oriented Labels: Visual cues for nutrition and portion guidance.

COMMUNITY & COLLABORATION

- Food Exchange Corners: Community sharing boxes or
- Store-Based Exchange Station: At stores or apartment complexes, a service or kiosk where residents can offer/swap items nearing expire.
- Ingredient Buddy System: Match with others to co-buy or
- Cooking Events: In-store workshops to foster skills and reduce waste.

 Shared Kitchen Support: Labeling, tracking, and communication tools for flatmates.



Description

Yasha

Student accommodation / Cross-cultural /



Description

Yasha

Student Accommodation / Cross-cultural /



Description

Desiree

4 person / Cross-cultural / Multigeneration



Description

Yasha

Student Accommodation / Cross-cultural /



Description

Louis | Working Male | London

7 person / Cross-cultural /



Description

Calvin | International Male Student | London

2 person / Cross-cultural /



Description

Rayna

Student Accommodation / Cross-cultural /



Description

Rayna

Student Accommodation / Cross-cultural /



Description

Rayna

Household type / Cross-cultural /



Description

Klaudia

2 person / Cross-cultural /



Description

Neha | International Female Student | London

2 person / Cross-cultural /



Description

Kay | International Female Student | London

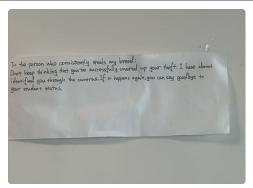
Household type / Cross-cultural /



Description

Kate | International Female Student | London

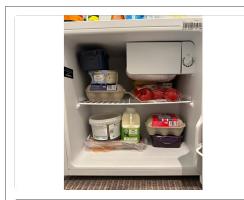
Family home / Cross-cultural / Multigeneration



Description

Simran

Student Accommodation / Cross-cultural /



Description

Bamee | International Female student | London

w/ Landlord / Cross-cultural / Multigeneration



Description

Kay | International Female Student | London

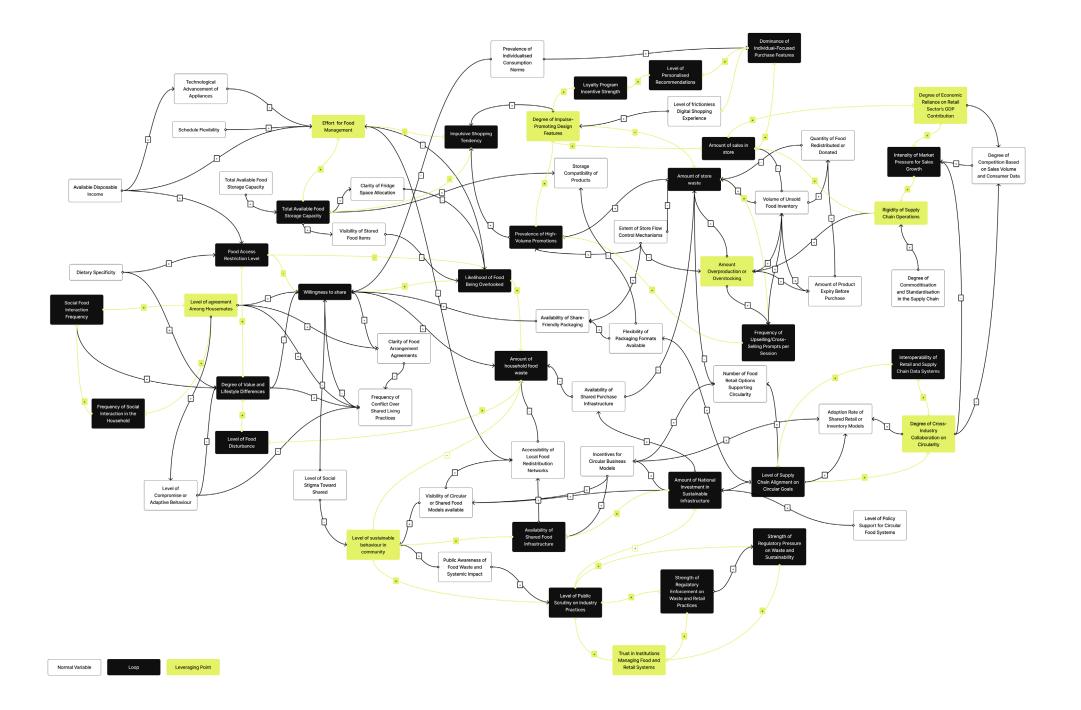
Household type / Cross-cultural /

System Map

Visualising interconnections and feed-back loops

We translated these coded themes into a detailed system map. This map visualises the interconnections between factors like storage limits, emotional burnout, retail overportioning, hygiene expectations, and accountability breakdowns. We highlighted feedback loops and leverage points within the co-living context.

We wanted to understand not just what the problems are, but how they interrelate and reinforce one another. Mapping the system helped us see where small design interventions could disrupt negative cycles or enable positive change toward shared responsibility.



Signal Scanning and Transition Design Pathway

Structuring change through real-world signals and shared visioning

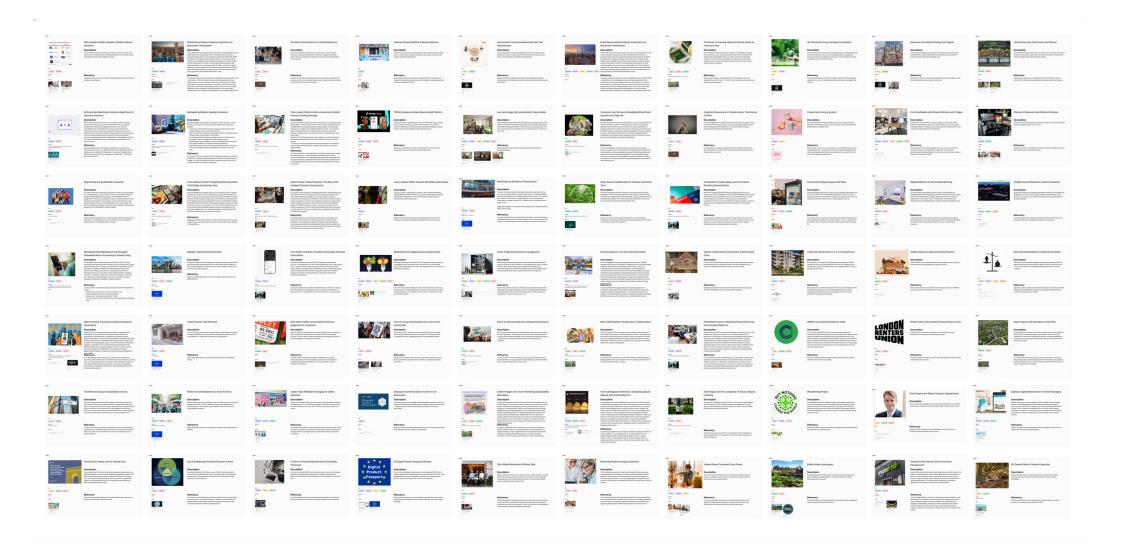
To move beyond analysis toward actionable change, we applied a Transition Design Pathway approach.

First, we conducted signal scanning to identify and analyse existing solutions and emerging practices that address ownership, waste, packaging, sharing, and retail design. These included weak signals, promising innovations, and local experiments already disrupting the dominant system.

We then systematically mapped responses we captured earlier, using the insights to clarify what elements of the current system need to be phased out, what valuable practices and values should be retained, what disruptive opportunities already exist, and what early indicators of our desired future are already emerging.

We then synthesised all this work into a cohesive Future Vision statement.

This text integrates critique, aspiration, and practical possibilities into a shared, design-oriented vision for more collaborative, circular, and sustainable ownership models in food systems.



What isn't working anymore and needs to be transitioned "out"?	Retail Environment & Systems	Supermarket aisles designed to trigger impulse buying	Buy-more-save-more pronotions that encourage overconsumption	Checkout lanes filled with grab-and-go mini items	Retail experiences that priorities speed over human connection	Retail messaging focused on speed instead of preservation or planning	penalise people v	sho can't	mes that Retail metrics for sales valume, not leading care or value.	used on Overflowing at ong-term by bulk deals of stor	helves caused No syst is and limited contail rage pockey	ems to return ners or reuse disc ging in stores	Retail ecosystems connected from food- sharing platforms
	Product & Packaging Design	Ready meals portioned too large for single or shared USE	Meal deals optimised for price, not flexibility or nutrition	Single-use containers that discourage reuse or shared eating	Single-use plastic packaging that can't be resealed or repurposed	Multi-packs that promote overbuying and food wast	e Family size" pack households with te structure	no family missing from	everyday reflect real-life ap-	petite or			
	Household & Co-Living Practices	Flatpack-style kitchen layouts that ignore shared living needs	Fridges that create avoidance, not collaboration	Pantries full of duplicated staples due to lack of shared planning	Shared food ignored because no one wants to be "the one who finishes it."	Perishables avoided because they spoil before they can be shared	Frozen foods v because owner unclear	rasted Fridges gov nhip is passive-aggress system	sive labelling shared housing—o	sults in voorpone selves			
	Retail and P	ackaging Practices That Enable C	ircular Behaviours	Emerging Norms of Shared Ownership in the Home	Local as	nd Community-Based							
What should we keep?	Price segmentation that allows for budget conscious choices and the segment of budget conscious choices and segment of budget segment of the		produce and refillable	Shawod staples (like oil, nice, spices) that Whatafap a households agree to NeetBoor group spice is sharing food and				notice Material Digital and Tech-Enabled Incidents					
	Reduced sections that help prevent food wester and make groceries more affordable	Retail spaces that accept residule shapping bags and containers	Refil pouches for cleaning or cooking products	Jers, tins, or tubs that people instinctively loop and reuse	Church halfs, school fibraries used as informal redistribu points	and veg schemes th	nat Compo	stable or paper- i produce bags	Food sharing apps like Olio and Too Cood To Go				
	Co-living Becom	es an Engine for Social Infrastruc	ture and Mutual Care	Communities Cultive	ite Food Systems	Policy Shapes Cir	rcularity as a Civic Right. Not.	a Personal Burden		ehaviours for Collective Impact		Infrastructure That	Reflects Shared Living Norms
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								Financial Tools That Enable	Meal Models That Reduce				
What pieces of our future vision are already here in the present?	Smarter Food Tech for W. Reduction and Transpare	aste Inf	nastructure for Reuse, Refill, and Long-Life Packaging	Retail	and Redistribution Models That Normalise Surplus	Shared and Local Food Production Models		Shared and Fair Food Access	Waste and Encourage Sharing	<u> </u>			
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Theme: move towards collaborative and shared as response to economic development, rise of cost of living and housing crisis in modern cities

In the 2020s, a surge of co-living developments in cities were created in response to rising housing crisis, cost of living, and slow economic development. Domestic infrastructure started to adapt and change due to the surge of co-living. Triggered by the rise "flat failgue", a term coined to detail the emotional burnout from passive aggressive fridge notes, confrontational conversations, and fridge congestion, Rhythm launched its pilot app aimed at turning flats into micro food communities. It introduced the idea of StockTogether a concept created to encourage sharing, co-buying and effective communication within flats. This reframed food from a private burden to a more collective opportunity.

In response to more individuals living collectively but shopping alone, Tesco piloted ShaerCode: a checkout feature that let shoppers split bulk items with others in real time. It helped reduce waste from oversized packs and gained traction in boroughs with high coliving density. Around the same time, retailers began installing modular smart refill stations for dry goods. Using tap-in tap-out tech, these machines allowed people to dispense exactly what they needed, supporting intentional, portion-based shopping and reducing waste. Both interventions marked a shift toward collaborative consumption at the point of purchase.

Meanwhile, a growing number of zero-waste retailers began integrating hyperlocal systems into their operations. Some introduced vertical herb gardens that allowed subscription members to harvest fresh ingerdients in-store, reinforcing seasonal, low-impact cooking. These efforts signald a broader shift: retail spaces were no longer just distribution hubs, but community-scaled ecosystems designed to close the gap between production and consumption and bring circularity closer to home.



Theme: move towards retail circular systems & policy implementation prioritising

By the early 2050s, co-living becomes less of a response to the housing crisis and economic development, but rather a recognised and more regulated form of living in urban life. Following decades of rising density, economic instability, and cultural shifts away from the nuclear household, new national housing policies redefined "fit-for-sharing" living models. Local councils began issuing certifications for dwellings optimized for collective routines including shared food infrastructure, cooperative appliances, and modular storage.

This triggered the creation of the **SplitSmart Fridge**: a purpose-bull smart fridge for HMOs, featuring barcode scanning, personal compartments, and Al-enabled tracking of food usage and sharing. Piloted first in student housing and high-density HMO flats, SplitSmart reduced both fridge congestion and food waste, while offering residents more transparency and autonomy within shared space.

In parallel, circularity started to be framed as a collective responsibility rather than an individual one. Retailers adapted by embedding "shared loops" into their operations including refill stations, compost exchange hubs, and neighbourhood-scale food redistribution programs. These systems were designed to serve groups rather than individuals, redistributing surplus, reducing packaging waste, and creating a shared ethic of local resource stewardship. Marketing also evolved matching behavioural shifts. Rather than targeting individual households, platforms now catered for micro-food networks curated to the preferences, values, and constraints of shared homes. Pricing was dynamic, nudging groups toward regenerative choices through collective purchasing power.

Governance adapted to support this shift, HMO regulations were restructured, not just by occupant count but by the dwellings ability to meet shared consumption, storage, and sustainability goals. In many boroughs, residents voted on how their shared data on waste reduction, energy use, or food sharing was reinvested into community-owned infrastructure.

By these years, co-living was no longer an alternative but rather a shift in the infrastructure of a regenerative urban food system, where trust, tools, and routines were designed to be collective from the start.



Theme: systemic redesign meets cultural transformation, hyper local systems, more circular and regernative loops as well as more HMO and policy regulations that lead to more normal forms of co living

Hyperfocal food loops which were once more experimental became the foundation of urban provisioning. Every certified co-living dwelling participated in shared composting, modular refill infrastructure, vertical grow walls, and rotational meal-prep systems. These weren't add-ons but instead they became baseline standards embedded in updated HMO housing codes.

A major catalyst was the rollout of **Nutrient Credits**: a collective food budgeting system issued by cities and co-ops. Rather than assigning value per item, credits reflected collective choices—like burjing in bulk as a household, contributing to shared meals, or redistributing unused food. These credits could be exchanged for high-demand goods, kitchen upgrades, or communal perks like access to cooking facilitators or skill shares. Food became less about individual ourbrase, more about mutual contribution.

Governance reflected this shift. HMO classifications expanded to account for circular participation and community impact. Metrics such as waste-to-share ratios, nutrient equity, and communal prep hours became indicators of success — used to redistribute funding or unlock housing incentives.

By now, most boroughs had adopted **Commons Councils**: resident-led bodies that comanaged local food systems alongside Al-assisted planning tools. These hybrid systems ensured ecological balance, cultural relevance, and equity in every micro-region. From menu suggestions to refill stock levels, the system adapted to human needs, not just economic flow.

Future Vision

In this future, food is no longer bought, owned, or wasted in the ways it once was. What was once a fragmented, hyper-individualised system built for speed and disposability has been reimagined as a livina infrastructure of collective nourishment.

Inside the home, multicultural co-living is no longer an exception, but a design foundation. Shared spaces are built to facilitate participatory ownership – not only of things, but of time, routines, and care. Kitchens track contribution, not consumption. Meals are co-planned and co-cooked through ambient systems that recognise preference, dietary needs, and availability. Technology does not automate away connection; it makes collaboration effortless and equitable. Retail has become a point of reflection, not impulse. No longer anchored in shelf volume or product push, the new marketplaces act as slow spaces – locally attuned, socially embedded, and

materially circular. Shoppers no longer think in terms of single transactions, but of shared loops. Every product has a care trail, showing how it has been used, reused, grown, or returned. Shared purchasing is the norm, and refill logistics are choreographed at the neighbourhood scale.

Across the system, waste has been reclassified as a design failure. There are no bins, only returns. Packaging is a service, not a static object – tagged, tracked, and circulated within closed loops that reward maintenance over disposal. Composting and redistribution are not moral imperatives, but cultural expectations – seamlessly integrated into public life like voting or recycling once were.

Governance reflects this shift. Policymaking treats access to nutritious, culturally relevant food as a civic right, not a market outcome. Metrics of success have moved from GDP to indicators like time-to-waste, community nourishment, and care-per-product. Ownership has been reframed as a role you play, not a status you hold.

This is a world where food systems no longer just fill shelves or stomachs – they weave people into place, and place into purpose. In reframing ownership as care, the system has made space for something both ancient and new: the possibility of living well, together.















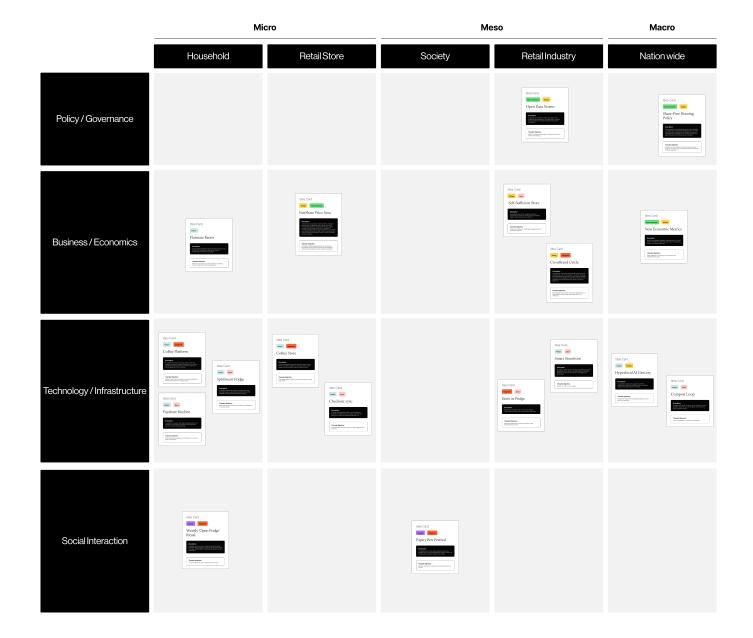


Solution Matrix

Mapping ideas by scale, domain, and feasibility for implementation

We wanted to move beyond isolated ideas to understand them as part of an actionable system for change. The matrix highlights complementarities, gaps, and layered opportunities for intervention – while also assessing how realistic and impactful each idea could be.

It acts as a strategic toolkit for envisioning retail as an enabler of sustainable, transparent, and collaborative ownership models – grounded in the real-world potential to move from concept to implementation across policy, business, technology, and social design.



Realising Our Preferred Future

Integrating Horizons, Solutions, and Strategic Steps

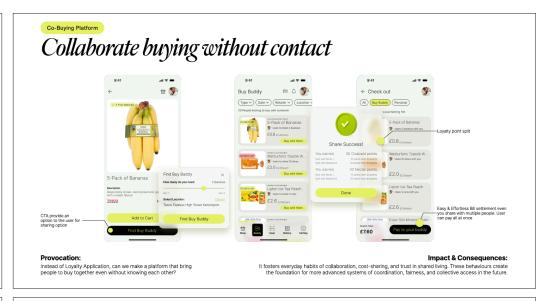
HORIZON 1- NUDGING CHANGE WITHIN LEGACY
HORIZON 2- SLOWING DOWN THE CONSUMPTION
HORIZON 3- HYPERLOCAL, REGENERATIVE
COMMUNAL FRIDGE
BACKCASTING

Horizon 1 Nudging Change within Legacy

Near Term Vision // 5-10 Years Strategic and Tangible Action **Description:** In this early stage, interventions work within existing retail systems to make collaborative consumption possible without disrupting infrastructure. The aim is to shift behaviours, perceptions, and norms, making it easier for individuals in co-living spaces to share food purchases, reduce waste, and begin to build trust in shared domestic settings.

Transition goal: To icebreak the act of sharing in UK food culture and test new models of consumption that support co-living lifestyles within today's retail frameworks.









Horizon 2 Slowing down the consumption

Mid Term Vision // 10 - 20 Years Strategic Future Vision **Description:** As collaborative habits take hold, retail shifts to support intentional, data-led consumption. Store shift to customers controlled portion size instead of by packing. Sharing moves from buying together to redistributing what's already available, guided by smart fridges and expiry data. Consumption slows through visibility and coordination

Transition goal: To intentionally slow the pace of consumption by using visibility, shared infrastructure, and create an open data norm to reduce food waste, duplication, and friction in shared living.







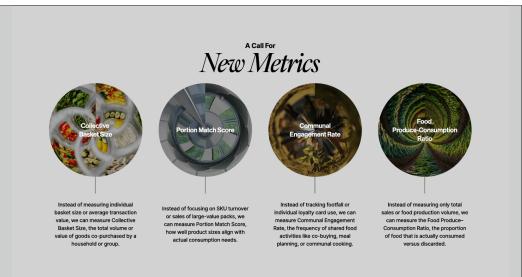
Horizon 3 Hyperlocal, regenerative communal fridge

Long Term Vision // 20 - 30 Years Social Dreaming

Description: In the long term, food retail transforms into shared civic infrastructure – a system of local loops, community governance, and access. Value is measured by ecological and social impact, not price. Sharing becomes standard, embedded in policies, incentives, and everyday neighbourhood life.

Transition goal: To build a regenerative food retail system rooted in fairness, circularity, and local participation, where access is earned through contribution, not just purchase.





Backcasting

Planning steps from future vision to present action

We used backcasting as a strategic design method to translate our Future Vision into practical pathways for change. Unlike forecasting – which projects current trends forward – backcasting starts with a clear, desired future outcome and works backward to identify the steps needed to reach it.

We wanted to ensure our work wasn't just aspirational but actionable. Backcasting helped us break down the gap between today's problems and tomorrow's goals, revealing where to start and how to maintain momentum over time.

