

**BIOECONOMY
IRELAND
WEEK**

OCTOBER
16-22 2023



10.00 Gathering

10.15 Welcome and introductions

10.25 Food Rescue Café project overview

10.40 Food waste prevention in cafés

11.00 Break

11.20 Scoping workshop - Surplus Food Use Guidelines

12.45 Lunch



Who We Are

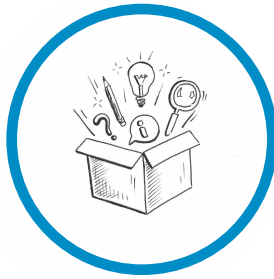
The Rediscovery Centre

National Centre for the
Circular Economy

A creative movement
connecting people, ideas and
resources to support the
circular economy in Ireland



Strategic Goals



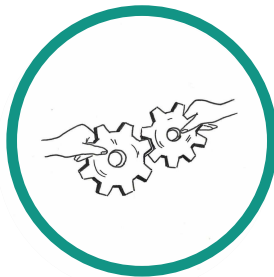
Goal 1 Educate

Advancing Lifelong Learning



Goal 2 Demonstrate

Enabling Action and Best Practice



Goal 3 Collaborate

Deepening the Movement



Goal 4 Advocate

Driving Evidence Based Policy

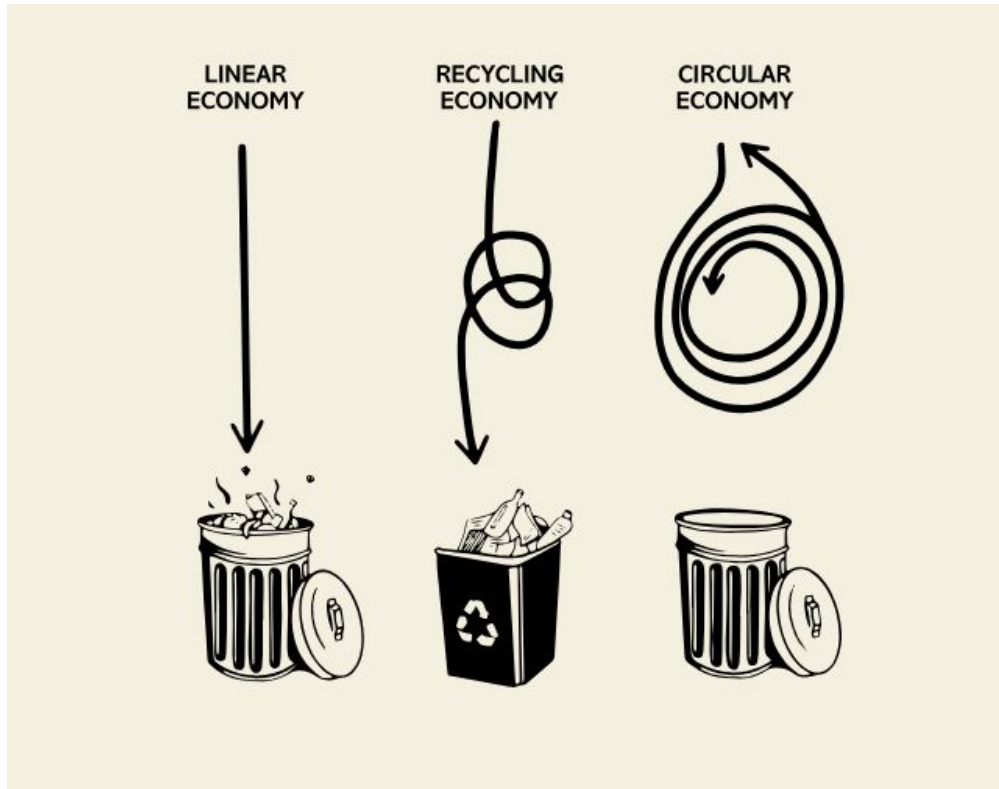


Goal 5 Thrive

Creating a Culture of Culture

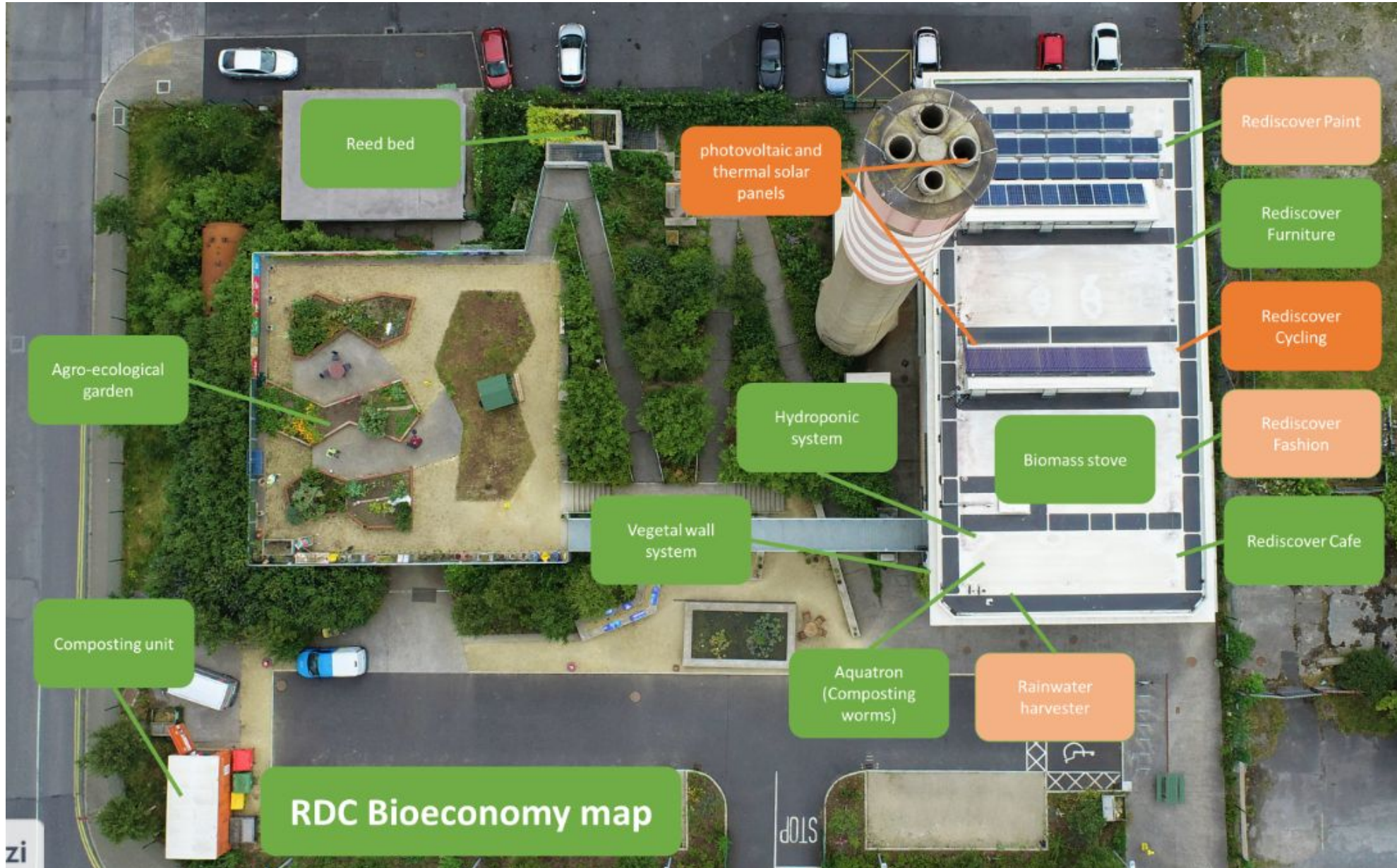


Bioeconomy & Circular Economy



Bioeconomy definition

The bioeconomy is an **economy** based on the *sustainable and circular* use of **renewable biological resources** and **processes** to produce : food, feed, bio-based products, energy and services.
(modified FAO definition)



BIOECONOMY IRELAND

All Voices Together

OCTOBER 16TH – 22ND 2023

WE'VE GOT SOMETHING FOR EVERYONE



<https://irishbioeconomy.ucd.ie/>

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Food Rescue Café Project

EPA Green Enterprise: Innovation for the Circular Economy

Sarah Zimmermann
Research Officer, Rediscovery Centre



Context



**There is no
sincerer love
than the love of
food**

**George Bernard
Shaw**

Context



Context

About **one third** of all food produced is lost or wasted in the food supply chain

UN Food and Agriculture Organisation (FAO)

Food Loss

production,
post-harvest,
processing

Food Waste

retail and final
consumption

Food Waste in Ireland



Image: www.epa.ie

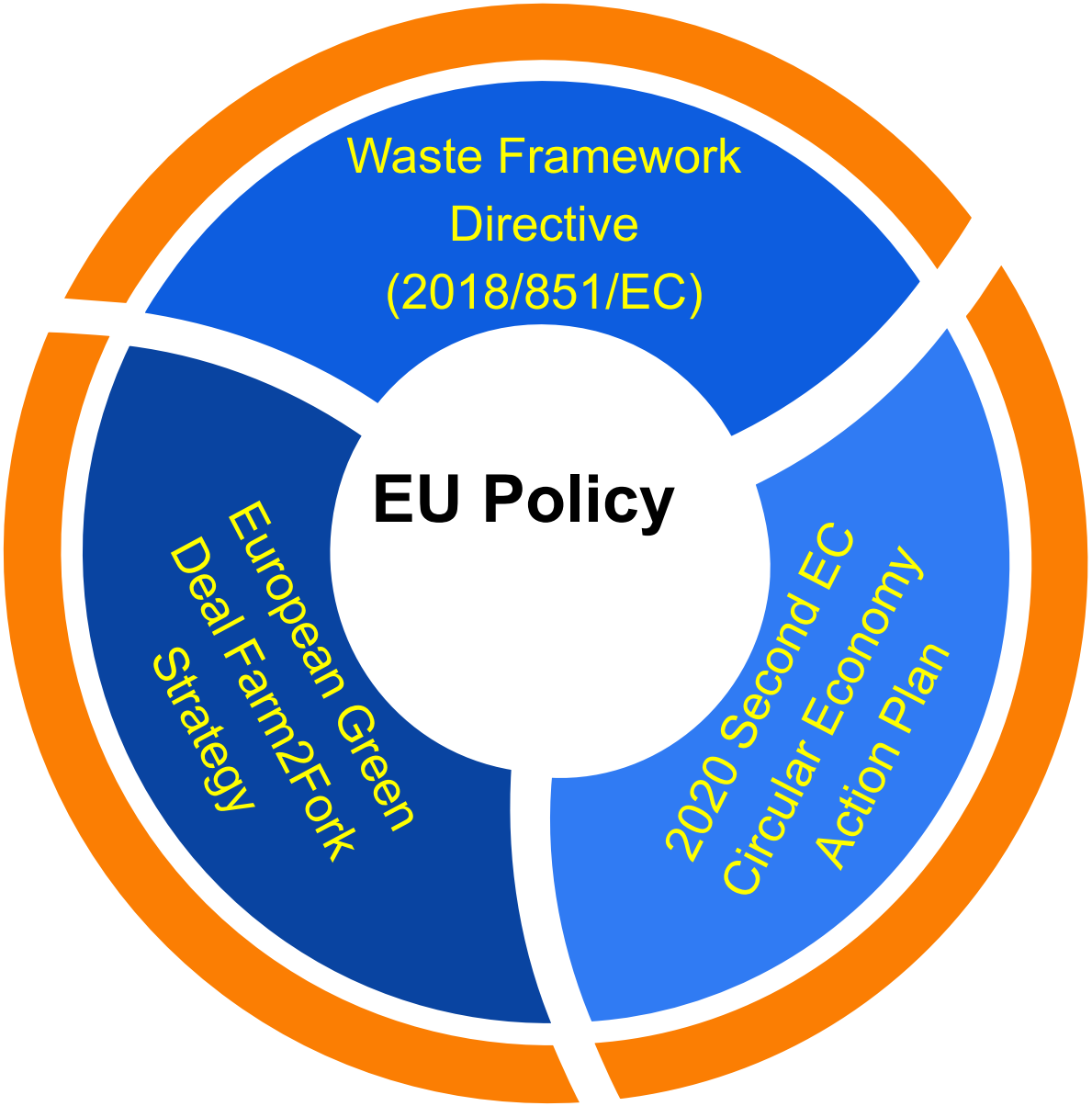
UN Sustainable Development Goal



Target 12.3

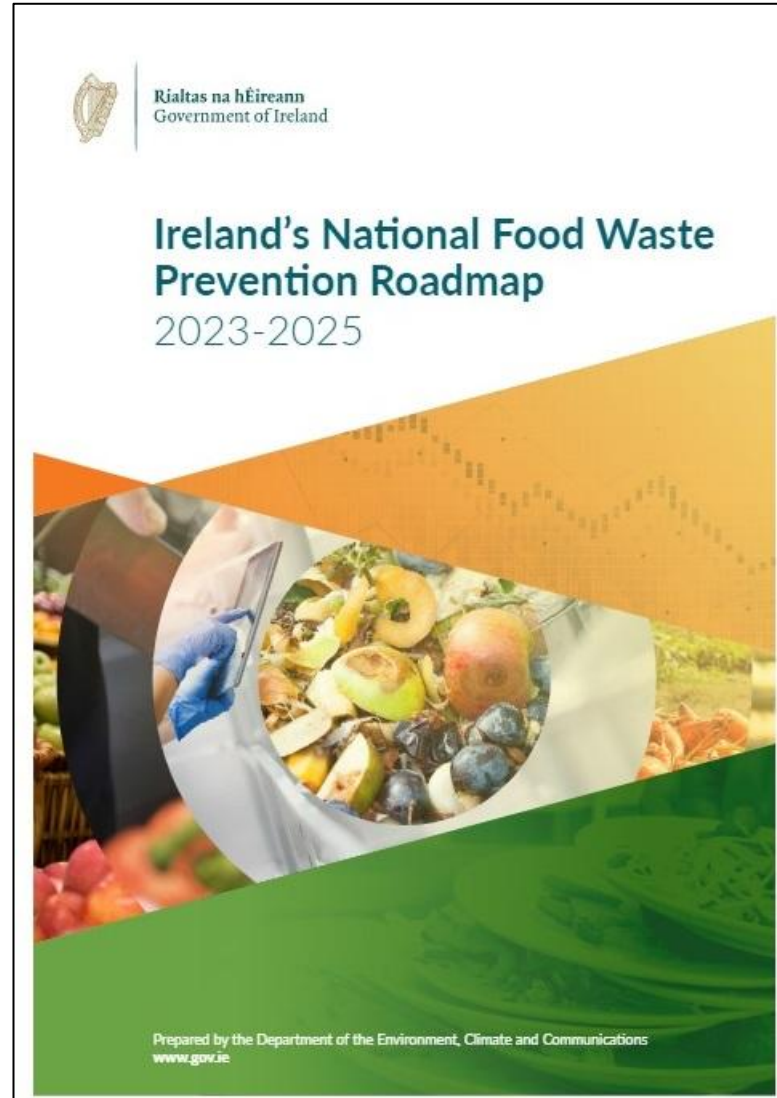
**By 2030, halve per capita global
food waste at the retail and
consumer levels**

Policy background

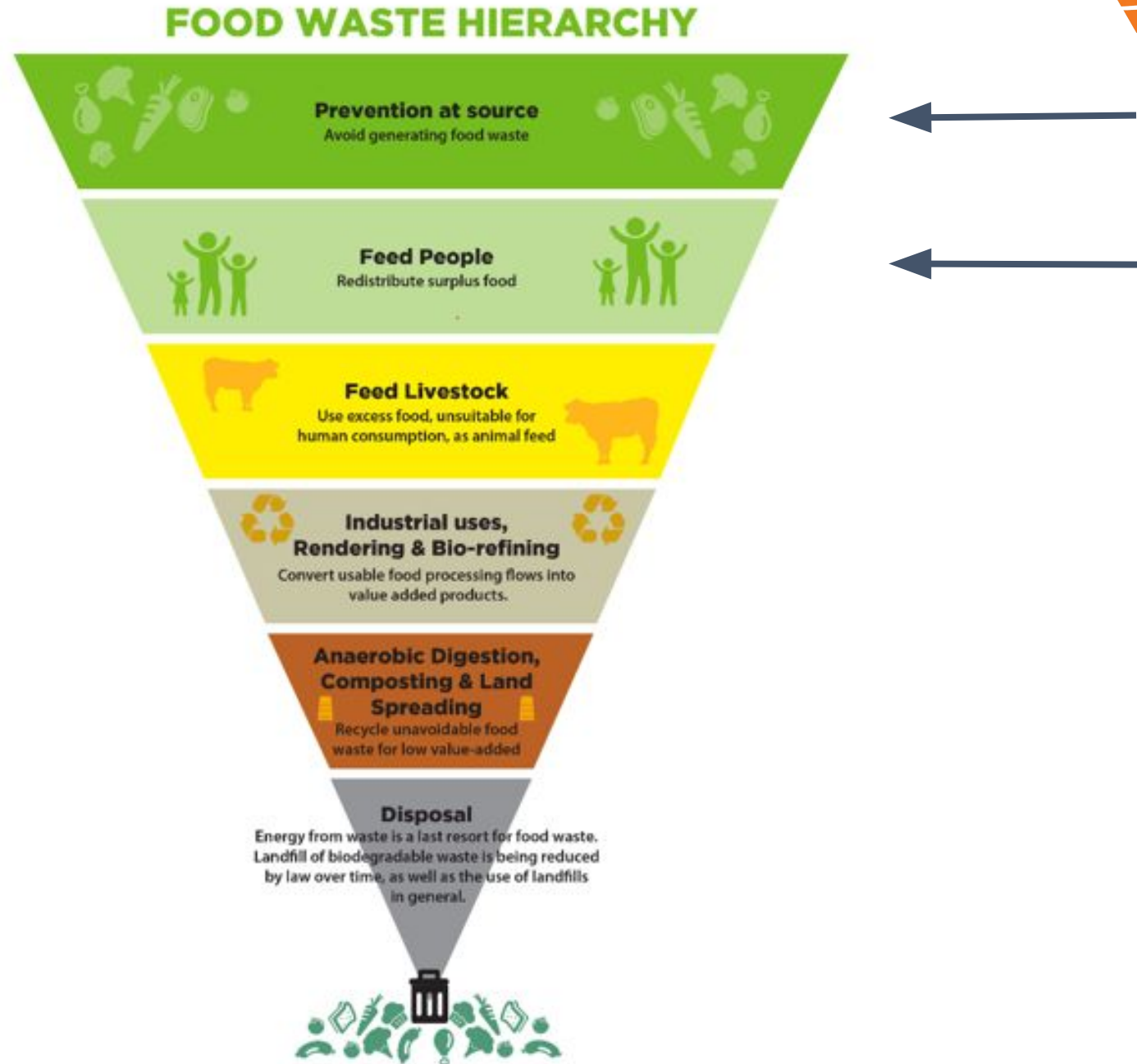


National Policy

Surplus food redistribution actions



Policy background



Surplus food redistribution in Ireland

EU Platform on Food Losses and Food Waste, 2019

- FoodCloud Hubs, Too Good To Go
- EPA Food Waste Charter - Retail Action Group
- Food Safety Authority of Ireland - Food Donation Guidelines
- Donated food: acceptable condition, within the “use-by” date and handled safely



**Saving the Earth
one meal at a time**

February 2023 to May 2024

Aims & Research Questions



Aims

- Evaluate the costs, benefits, and challenges associated with surplus food use in cafés
 - impact on food waste, packaging
 - operational, regulatory and training challenges
- Develop guidelines for surplus food use in cafés

The Story So Far....

- M.Sc. Thesis - A pre and post analysis of food flows and carbon footprint of a surplus food café initiative - Rebecca Payling & Prof. Anna Davies, TCD
- Collaboration agreement forwarded to Buddy's & Blossom Artisan Bakery and Nan's SuperValu.
- Food Waste Characterisation Surveys completed by Clean Technology Centre for Buddy's & Blossom Artisan Bakery and Nan's SuperValu.
- Draft review of best practice in sourcing and preparing surplus food in a food establishment and guidance document for cafés
- Data collection protocols for pilot
- Advisory committee: Gar Byrne Neighbourhood Executive Chef at Google Barrow Street, Karen McGrane-Capcarrere from Food Cloud and Aoibhin Moore Heslin, Research Officer with Airfield Estate.
- Progress report submitted and accepted by the EPA in July 2023

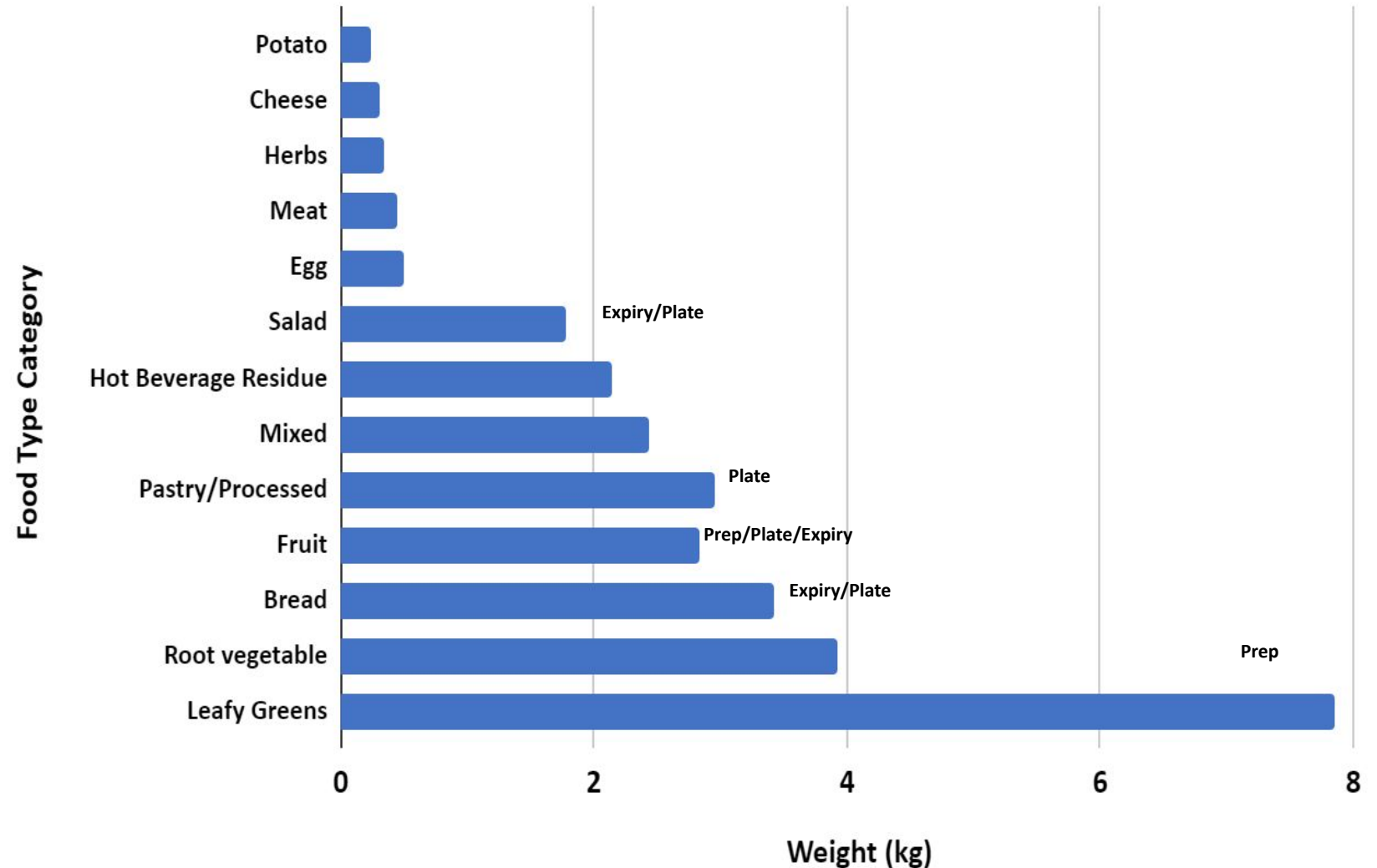
Research

A pre and post analysis of food flows and carbon footprint of a surplus food café initiative

Rebecca Payling & Prof. Anna Davies

Trinity College Dublin
M.Sc. Environmental Science

Food waste assessment pre food surplus use



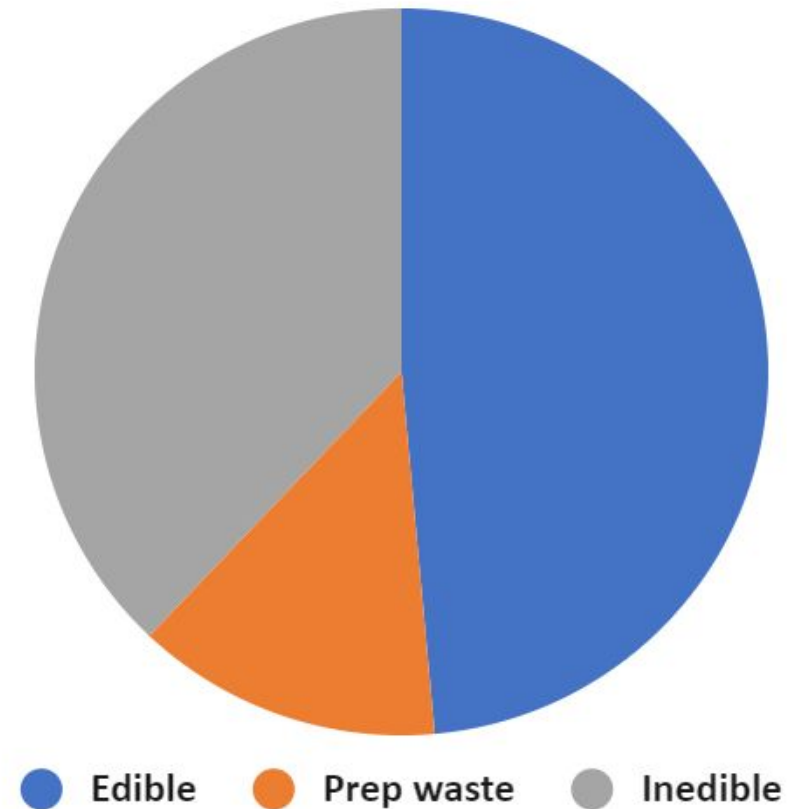
Research

A pre and post analysis of food flows and carbon footprint of a surplus food café initiative

Rebecca Payling &
Prof. Anna Davies

Trinity College Dublin
M.Sc. Environmental
Science

Edibility of food waste pre food surplus use



A pre and post analysis of food flows and carbon footprint of a surplus food café initiative - Rebecca Payling & Prof. Anna Davies

Food surplus used

A	B	C	D	E	F	G
Supplier	Collector	Date	Category	Type	Number	Weight (kg)
Buddy's	Sarah Z	13/6/23	Loose fruit	Pears	2	0.356
Buddy's	Sarah Z	13/6/23	Loose fruit	Cooking apples	2	0.480
Buddy's	Sarah Z	13/6/23	Loose fruit	Pink Lady apple	1	0.140
Buddy's	Sarah Z	13/6/23	Loose fruit	Limes	13	0.871
Lidl	Sarah Z	20/6/23	Loose veg	White onions	3	0.419
Lidl	Sarah Z	20/6/23	Loose veg	Red onions	3	0.411
Lidl	Sarah Z	20/6/23	Loose veg	Red pepper	1	0.190
Lidl	Sarah Z	20/6/23	Loose veg	Yellow pepper	1	0.194
Lidl	Sarah Z	20/6/23	Loose veg	Potatoes	5	1.456
Buddy's	Annie and Lexie	26/6/23	Packaged veg	Lettuce	1	0.195
Buddy's	Annie and Lexie	26/6/23	Packaged veg	Mushrooms	8	0.250
Buddy's	Annie and Lexie	26/6/23	Packaged veg	Carrots	10	1.003
Buddy's	Annie and Lexie	26/6/23	Loose veg	Strawberries	20	0.530
Buddy's	Annie and Lexie	26/6/23	Fresh/bakery bread	Bread	1	1.293
Buddy's	Sarah Z	29/6/23	Fresh/bakery bread	Baguette	1	0.350
Buddy's	Sarah Z	29/6/23	Fresh/bakery bread	Sour Dough loaves	4	2.424
Buddy's	Sarah Z	04/07/23	Herbs (fresh)	Dill	1 bag	0.050
Buddy's	Sarah Z	04/07/23	Herbs (fresh)	Oregano	1 bag	0.050
Buddy's	Sarah Z	04/07/23	Herbs (fresh)	Thyme	1 bag	0.050
Buddy's	Sarah Z	04/07/23	Loose fruit	Apples	4	0.306
Buddy's	Sarah Z	04/07/23	Loose veg	Potatoes	2	0.209
Buddy's	Sarah Z and Florent	06/07/23	Fresh/bakery bread	Baguette	1	0.350
Buddy's	Sarah Z and Florent	06/07/23	Fresh/bakery bread	Sour Dough loaves	4	2.424
Buddy's	Sarah Z	11/07/23	Loose veg	Carrots	4	0.640

Project Collaborators



Delivery

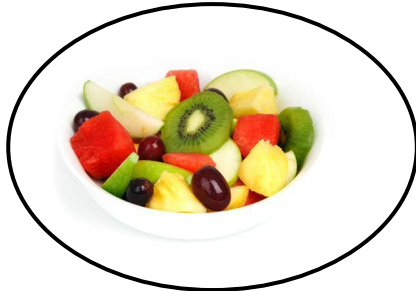


Assess and
collect food
surplus

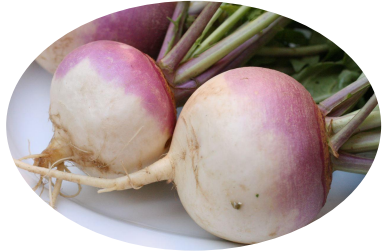
Assess and
collect food
surplus

Food Waste Characterisation Survey for project collaborators

Clean Technology Centre - Munster Technological University



FoodCloud – surplus food options



Next Steps

- Follow food safety regulations and guidance at all times.
- Regularise purchases from standard suppliers. This will help with recording food type and weight purchased from standard suppliers. Create system for recording invoices, receipts and covers.
- Focus on fruit, vegetable and bread surplus targets and offer a vegetarian and vegan menu to reduced food safety risk and to promote a plant-based diet. Chilled meat and dairy foods must be temperature controlled, cannot be used beyond 'use by' dates and are typically heavily packaged.
- RDC staff will collect food surplus from Buddy's Farmers Market **once a week on a set day and time**. RDC are under no obligation to collect any food surplus if it is deemed unsuitable. FoodCloud stocklist is emailed in every Friday morning.
- Buddy's are under no obligation to provide RDC with any food surplus or specific items. They will let us know if there is no food surplus available on collection day.
- Weigh, record and label all food surplus and packaging accepted by RDC in the RDC kitchen on a weekly basis. Kitchen brown bin waste weight will also be recorded daily. Paper recording sheets will be located in the kitchen.
- We should aim to use salad leaves, chives, scallions and herbs from the RDC garden.

Food Rescue and Research Cafe - Weekly Plan

Thursday

Collect food surplus from suppliers, plan menu for week, weekly project meeting

Friday

Cook dishes in the morning, fill freezer, and serve fresh food. Look at FoodCloud stocklist

Saturday

Serve fresh food

Sunday

Closed

Monday

Closed

Tuesday

Closed

Wednesday

Serve remaining food - Pay what you can day - compost leftovers

Weekly data collection - food surplus type and weight, packaging, photograph

Use a dedicated, labelled food collection box

Daily data collection - brown bin (kg)

Monthly data collection - input data from standard suppliers (invoices, receipts, weights of fruit/veg/bread), café covers

Review implementation plan and Food Surplus Targets on the last week of each month

Do three food waste audits and benchmark assessments - Oct, Jan, Apr

Food Waste Audit and Benchmark Recording Sheet

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Brown bin 1 (kg) Plate waste	-	-					-
Brown bin 2 (kg) Prep waste	-	-					-
Brown bin 3 (kg) Kitchen waste	-	-					-
Packaging waste	-	-	-	-	-		-
No. of Covers	-	-	-	-	-		-
Food purchase costs	-	-	-	-	-		-

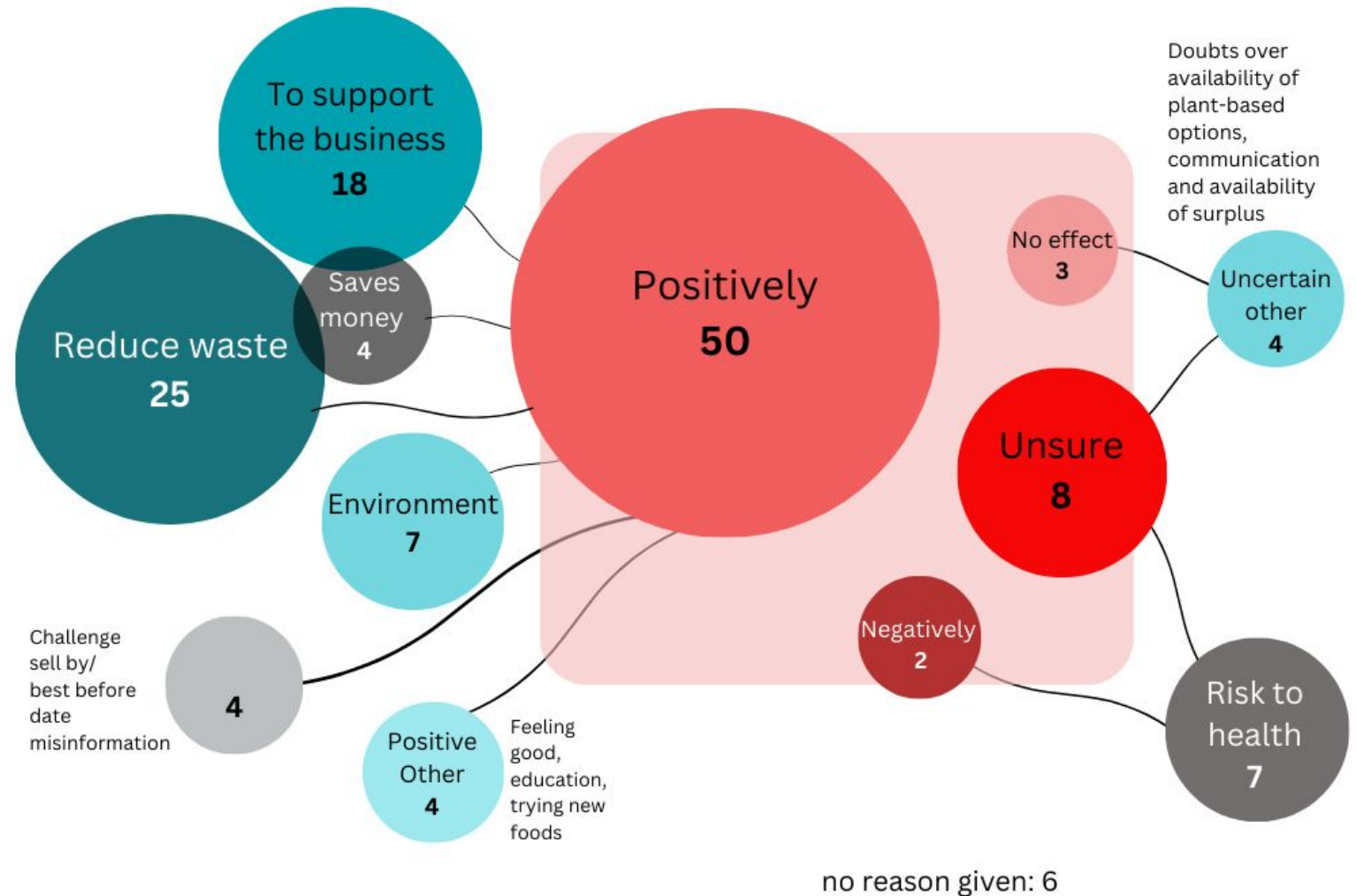
Research - Food Waste Attitudes and Behaviours Survey

How would you feel about purchasing food from a business that uses food that would otherwise be wasted (surplus food) and why? (n=63)

A pre and post analysis of food flows and carbon footprint of a surplus food café initiative

Rebecca Payling & Prof. Anna Davies

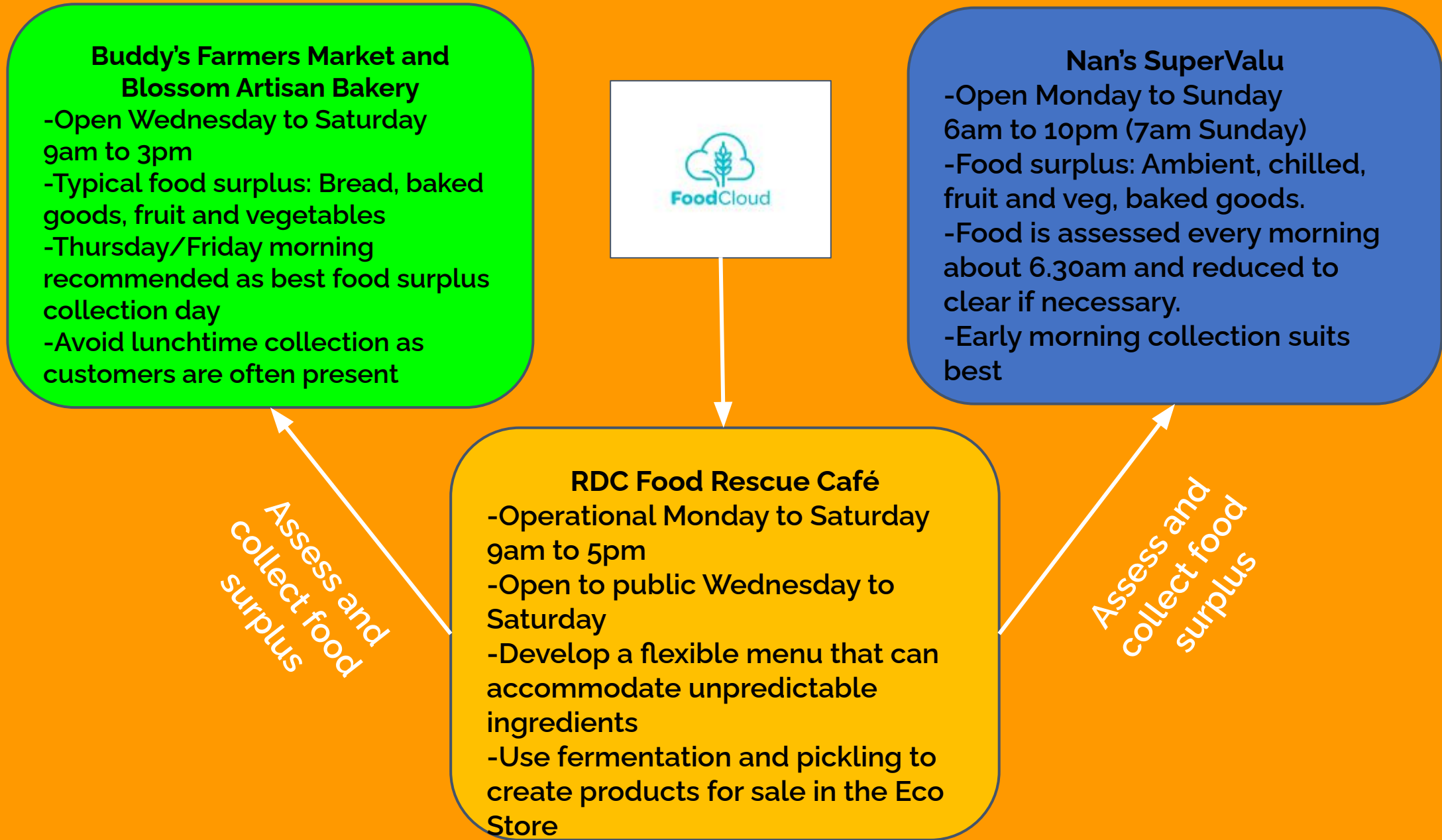
Trinity College Dublin
M.Sc. Environmental Science



**Good Food Festival Ballymun –
September 15th 2023
Ballymun Food Forum**



Food Rescue and Research Cafe - Logistics overview



Next Steps

**Revise menu based on available
food surplus and train staff**

Food Waste Audit and Benchmark

**Food Surplus Use
Data Collection**

Daily

Brown bin (kg)

Weekly

**Food surplus
weight, type and
packaging**

Monthly

**Review food from standard
suppliers, plan and targets**



Thanks!

<https://www.rediscoverycentre.ie/research/force-food-rescue-and-research-cafe/>

Consultation with food rescue café operators (Magic Hat Café, Fumbally Café and Instock Amsterdam)

- An invested Chef and staff are central to successful surplus food use
- Develop good relationships with local butchers, fishmonger, fruit and vegetable markets
- Freezing and preserving techniques (e.g. fermenting, pickling, conserving)
- Understand and minimise food waste before accepting food surplus
- Weigh food coming in and monitor food waste - consider using smart bin technology
- Develop a simple, flexible menu (soups, one pots)
- Consider a plant-based menu given the higher food safety risks linked to chilled products
- Adhere to food safety guidelines always
- Sophia Housing, Co. Cork and Luisburgh - Killeen Heritage, Co. Mayo

Scoping Workshop - guidelines for surplus food use in cafés

Food waste

Q 1. What are the benefits and challenges of surplus food use in cafés?

Regulation

Reduced food costs

Time

Info sheet

Q 2. What format and content might work best?

Video

Q 3. Research needs on surplus food redistribution and monitoring?

Inform and revise guidelines

Monitoring methods

Nutrition

Promote plant based diets?

Q 4. How can surplus food use in cafés help to drive public engagement on food system change?

Education