



**West Coast Climate  
& Materials Management Forum**

June 8, 2021

# **Food Waste Reduction and the Pacific Coast Collaborative**

# West Coast Climate and Materials Management Forum

A collaboration of state, local, and tribal governments  
with the mission to:

- ▣ Develop ways to institutionalize sustainable materials management practices.
- ▣ Develop tools to help jurisdictions reduce the greenhouse gas emissions associated with materials



# Check out the Forum's Resources

- [Original Report Connecting Materials/Climate](#)
- [Research Summaries](#)
- [Turn-key Materials Management Presentation](#)
- [Climate Action Toolkit](#)
- [Climate-Friendly Purchasing Toolkit](#)
- [Food: Too Good to Waste Toolkit](#)
- [Webinar Series](#)

[www.westcoastclimateforum.com](http://www.westcoastclimateforum.com)



**West Coast Climate**  
& Materials Management Forum

# West Coast Climate Forum Webinar Series Disclaimer

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**West Coast Climate**  
& Materials Management Forum

# Today's Speakers & Moderator



**Elaine Blatt**  
Oregon Department of  
Environmental Quality



**Mike Falconer Hall**  
UK WRAP



**Dana Gunders**  
ReFED





# Food Waste Reduction and the Pacific Coast Collaborative

WCCMMF - June 8, 2021



# Brief history of the PCC

- Initiated in 2013 with the signing of the Pacific Coast Action Plan on Climate and Energy
- Cities added in 2016 through the Pacific North America Climate Leadership Agreement
- Region represents world's 5<sup>th</sup> largest economy
- PCC facilitates collaboration on issues that cross borders and jurisdictional boundaries



# Brief history of the PCC

*Our 'Climate Resilience Framework for Collaborative Action' reflects the PCC commitment to model innovation that fosters resilience to climate change, sustains thriving communities, fosters equity, and creates jobs & economic opportunities*

-- Tweet from PCC leads, 04/02/21



# PCC Initiatives – reduce GHG emissions at least 80 percent by 2050

**Reducing Wasted Food**



**Creating a Low-Carbon and Resilient Economy**



**Transitioning to Clean Energy**



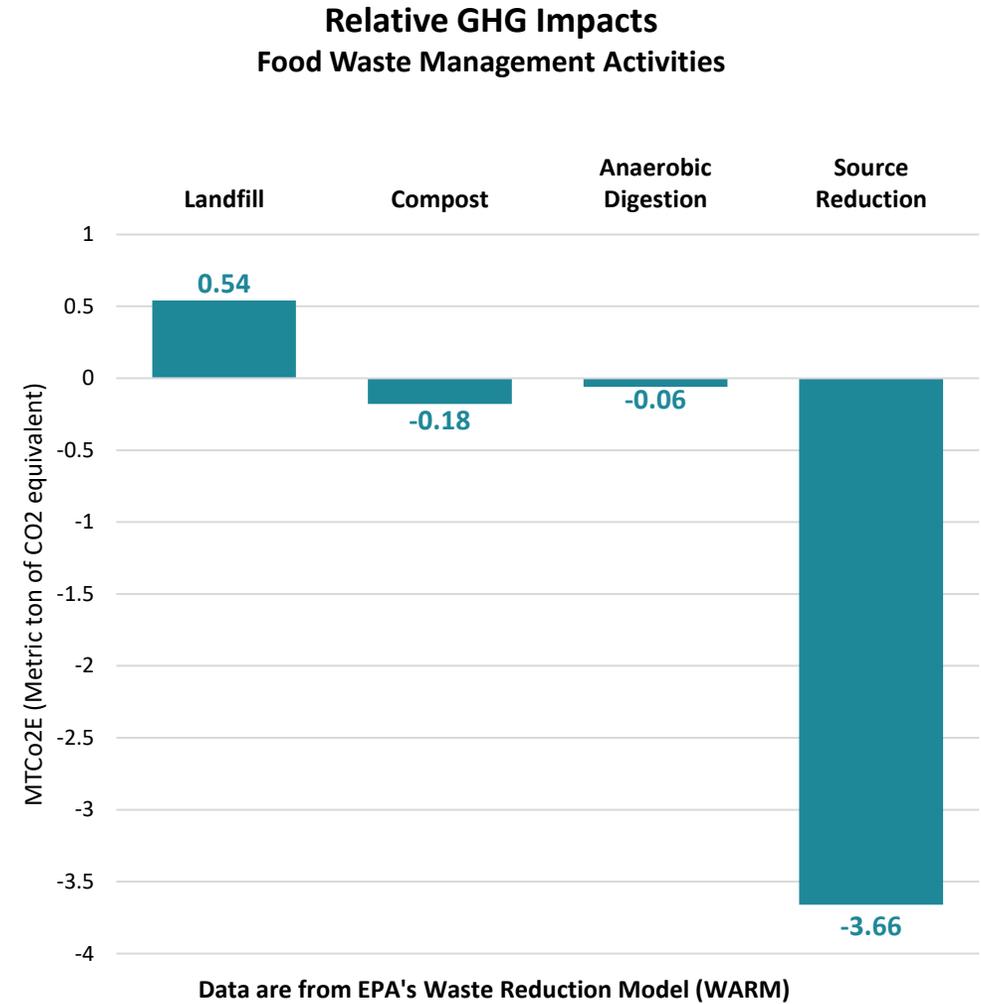
**Transforming Transportation**



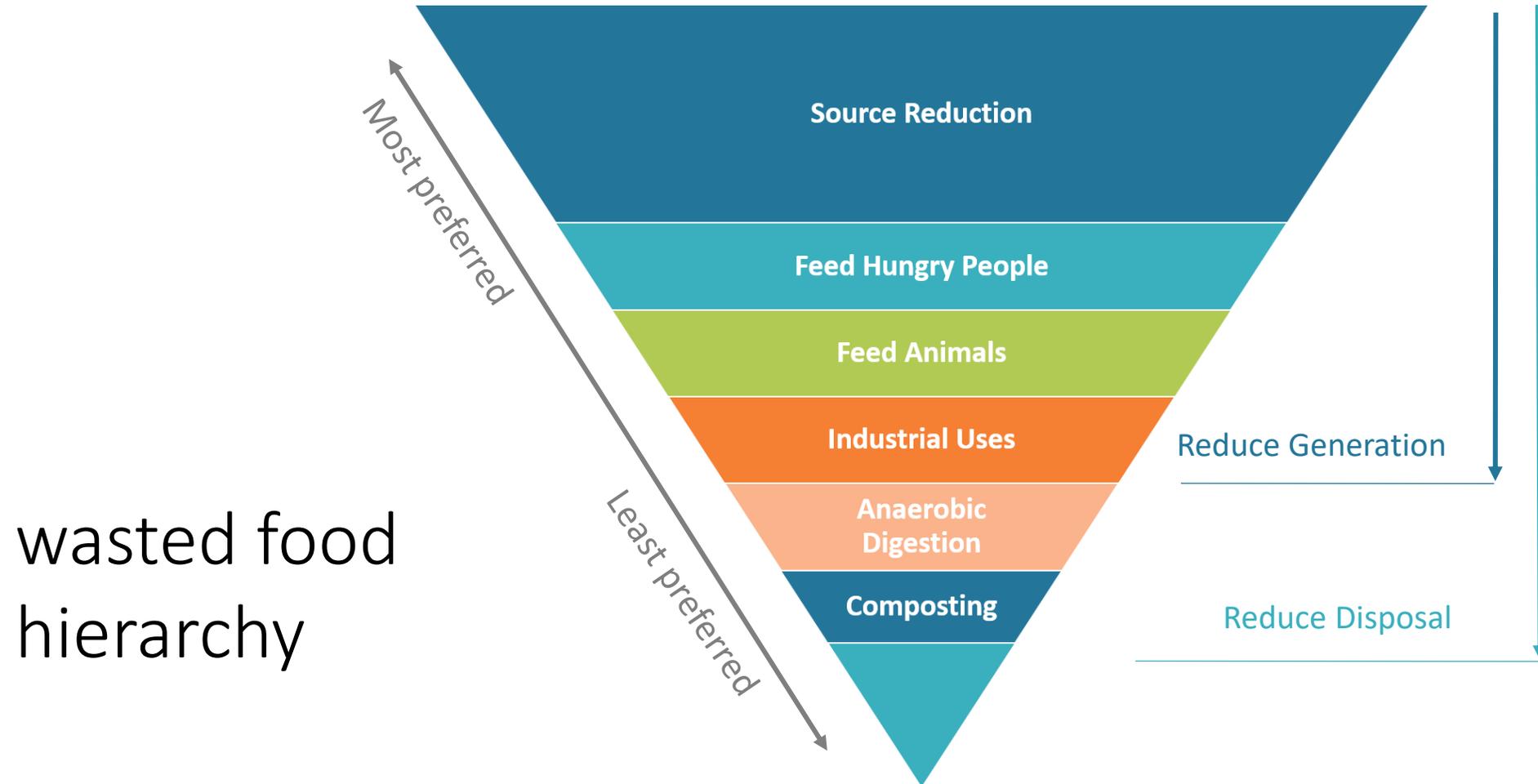
**Decarbonizing Buildings**



# Why food waste



# Policy context



# Origins of the food waste initiative

- Jurisdictions met in Portland in 2017 to form the Food Waste Working Group
- Agreed to work together on an initiative that could affect institutional and systemic causes of food waste
- Proposal – establish a voluntary agreement among grocers, modeled after the successful Courtauld voluntary agreement in the UK, pioneered by the NGO, WRAP



# Resource partners



Technical program support



Data and communications



Overall project management

# Pacific Coast Food Waste Commitment

- Regional goal of 50% reduction by 2030
- Engagement with grocers and brand manufacturers to gain their commitment to reduce wasted food
- Current signatories include:
  - ✓ Kroger (including Fred Meyer subsidiary)
  - ✓ Albertsons/Safeway
  - ✓ Regional chains: New Seasons, PCC Markets, Raley's, Sprouts
  - ✓ NW Food – largest food processor/manufacturing association in Pacific NW



# Pacific Coast Food Waste Commitment

- Project includes working groups on produce, dairy, food rescue
- Also includes a policy roundtable
- Will initiate work on technical projects later this year.
- Added jurisdictions to the project: Alameda County and San Diego in California, King County (Seattle)



thanks!

*Elaine Blatt*

[blatt.elaine@deq.state.or.us](mailto:blatt.elaine@deq.state.or.us)



Oregon's 2050 Vision for Materials Management:

*Oregonians in 2050 produce and use materials responsibly – conserving resources – protecting the environment – living well*



# Food Waste Reduction and the Pacific Coast Collaboration

Pacific Coast Food Waste Commitment

Mike Falconer Hall  
International Development Manager  
8 June 2021





# OUR PLAN FOR A SUSTAINABLE PLANET

WRAP'S BLUEPRINT FOR A  
WASTE-FREE WORLD BY 2025

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# OUR PLANET

## OUR HOME

TIME OF CRISIS  
TIME OF HOPE  
TIME OF OPPORTUNITY  
TIME FOR ACTION

We will reduce greenhouse gas emissions and cut global warming

We will reduce water use and protect key rivers

We will reduce waste, and clean up the planet – its land, its oceans & its air



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# WE WILL DO THIS – **TOGETHER**

**WE ARE AT THE HEART OF A GLOBAL ECOSYSTEM OF PARTNERS, ALL CHANGING THE PLANET FOR THE BETTER.**

GUIDED BY OUR SCIENCE, DRIVEN BY OUR PASSION. WE WORK:



At the heart  
of the system



Across the  
value chain



Around  
the world

**wrap**

**WE  
WILL  
DO  
THIS**

**TOGETHER**





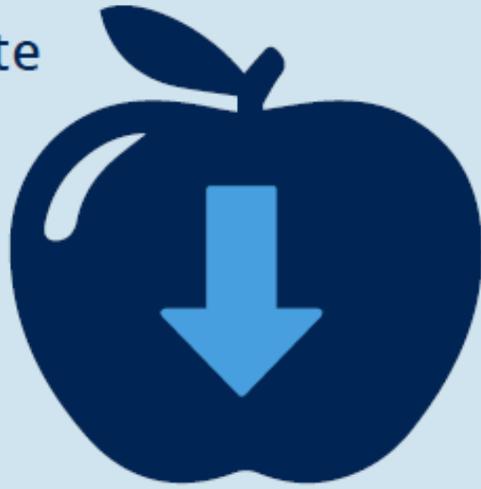
# Our focus

- Food
- Plastics
- Textiles
- Our strength is turning science into mass behavior change in businesses & in the home
- Working in over 25 countries

# WE'VE ALREADY ACHIEVED SO MUCH

Helped people in the UK reduce food waste in their homes by

**31% or  
1.4Mt**  
per year.



Helped Wales to become

**3rd best nation**

in the world at recycling, after Singapore and Germany.



## Sustainable Clothing Action Plan



Helped businesses reduce the carbon impact of UK clothing by

**16%**  
and water footprint by  
**19%** 

Courtauld Commitment helped the UK waste

**27%** less food  
Saving **5.3Mt**  
of CO<sub>2</sub>e per year.



## The UK Plastics Pact



Reduced problematic or unnecessary plastic packaging sold in the UK by  
**40%** since 2018.

# OUR REACH



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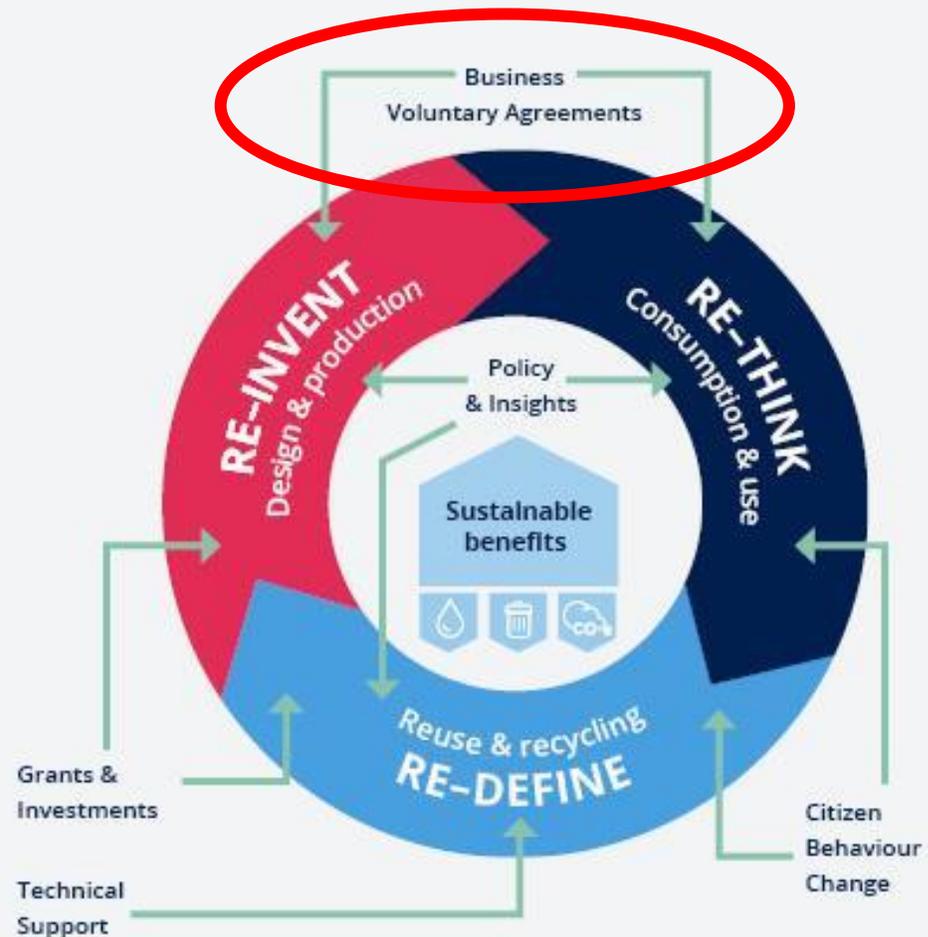


# OUR MODEL



WRAP works across the system, and through the value chain. We bring people together and make changes at all points to bring about the systemic change that is needed.

wrap



# Our international ambition

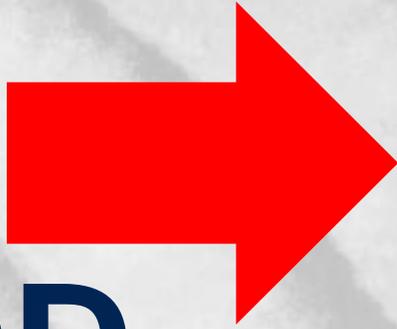
- Work with governments & international funders to develop & deliver policy
- Build capacity in local partners to deliver action such as PCFWC
- Work with them to localise the solution in each country & deliver system change
- Build networks of initiatives to share best practice & experiences

# Our global partners

- Developed the roadmap for delivering SDG 12.3 with WRI for Champions 12.3
- Helped UNEP develop the measurement methodology for SDG 12.3
- Global partnership with WWF on food waste reduction
- Working with Ellen Macarthur Foundation tackling global plastic pollution



# FOR FOOD



**We must fundamentally  
change the way we  
produce and consume food**

**wrap**

**By 2025:**

- **Help the food sector increase contributions to net zero.**
- **Enable more businesses to report their food waste.**
- **Engage more people in food waste reduction.**
- **Halve food waste by 2030 in line with UN SDG 12.3.**
- **Implement food waste reduction policies globally and support partners to deliver.**



## Food Smart: 5-point plan

## Helps meet Sustainable Development Goal:

**1. Reduce food loss & waste (FLW)**



**2. Redistribute surplus food**



**3. Divert as much as possible to added value products**



**4. Recycle remaining FLW**



**5. Minimise food waste to landfill and thermal treatment**



# Global Food Waste Impact

- Financial - \$940 billion
- Environmental - 3rd biggest GHG emitter
- Social – 1 in 9 go hungry



x 10



x 6



## The Commercial potential

For each **€1**  
invested  
**€14** of  
financial  
benefit  
realised



# The Economic Case

- Saving money and driving efficiencies
- Building resilient supply chains
- Reducing household food waste = less cost for the public sector
- Customers have more money and may trade up

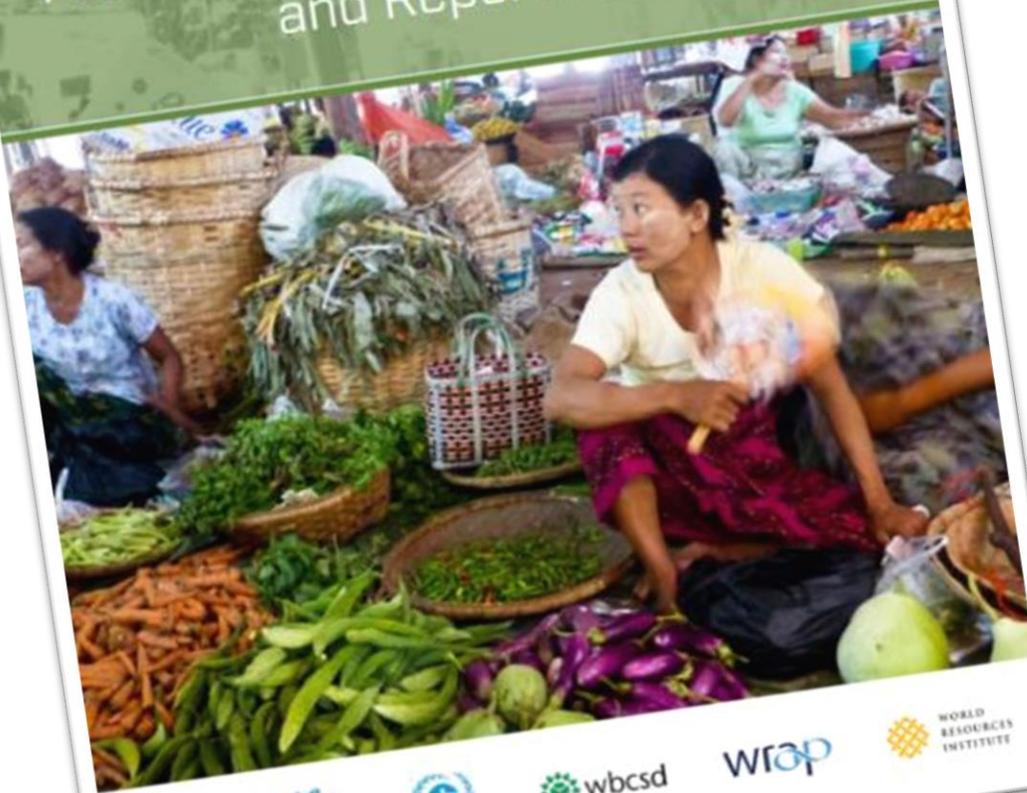




Food  
Loss + Waste  
PROTOCOL

VERSION 1.0

# Food Loss and Waste Accounting and Reporting Standard



“If you can’t  
measure it, you  
can’t manage it”



Target

Measure

Act



# Courtauld 2025 – Driving change

## Courtauld 2025

is an ambitious voluntary agreement that brings together a broad range of organisations involved in the food system to make food and drink production and consumption more sustainable.

Action will be delivered through collaboration, harnessing the power of partnerships, shared expertise and innovation

## Our collective ambition

is to cut the amount of resource needed to provide our food & drink by

**one fifth in ten years**

## Targets

**20%**  
reduction in food and drink waste

**20%**  
reduction in GHG

# What is a Voluntary Agreement (VA)?

Many definitions, such as:

“A collaboratively agreed, self-determined ‘pact’ to take action on a particular topic”

A voluntary regulation?

# Delivering SDG 12.3 'Connected and Aligned'



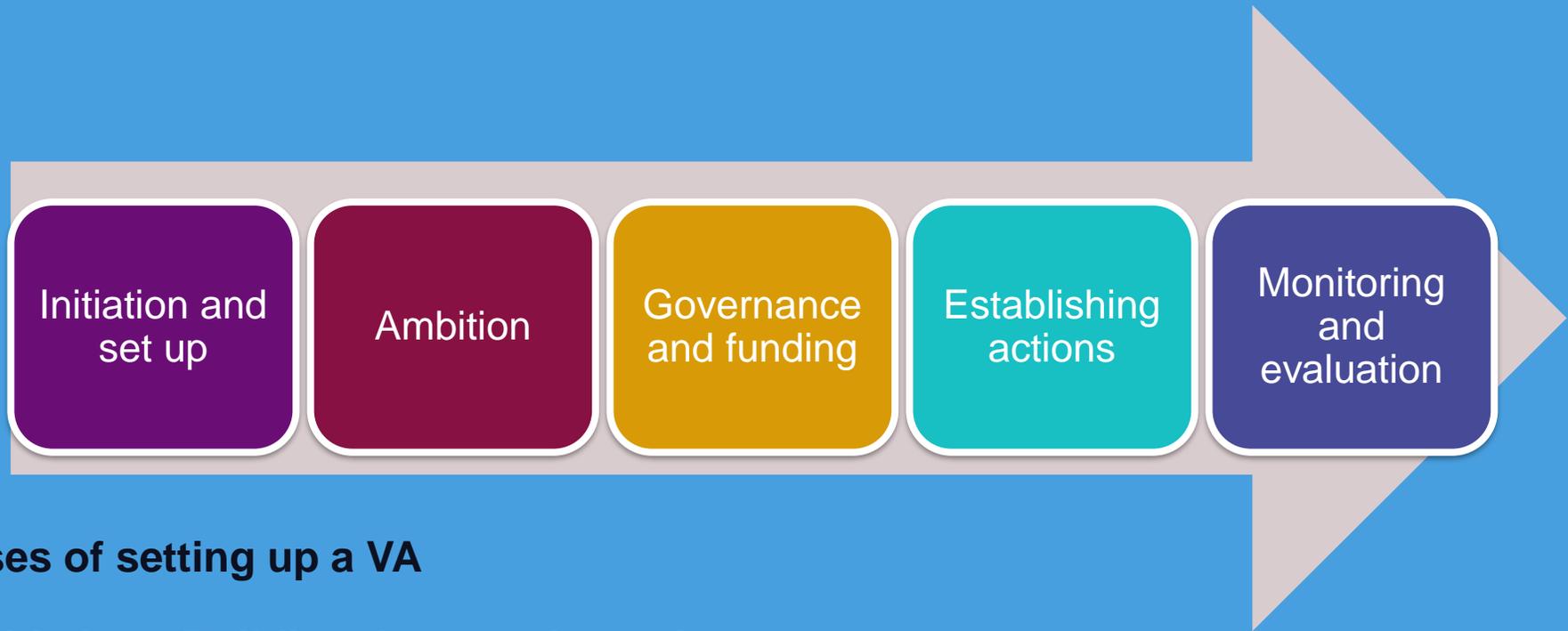
WORLD  
RESOURCES  
INSTITUTE



Pacific Coast  
Food Waste  
Commitment



# Blueprint for Voluntary Agreement (VA)



## 4 phases of setting up a VA

1. **Initiation: Building the case for action**
2. **Developing the initiative** (targets, scope, funding, governance etc)
3. **Recruitment and launch**
4. **Delivery and monitoring**

# Voluntary Agreements Globally

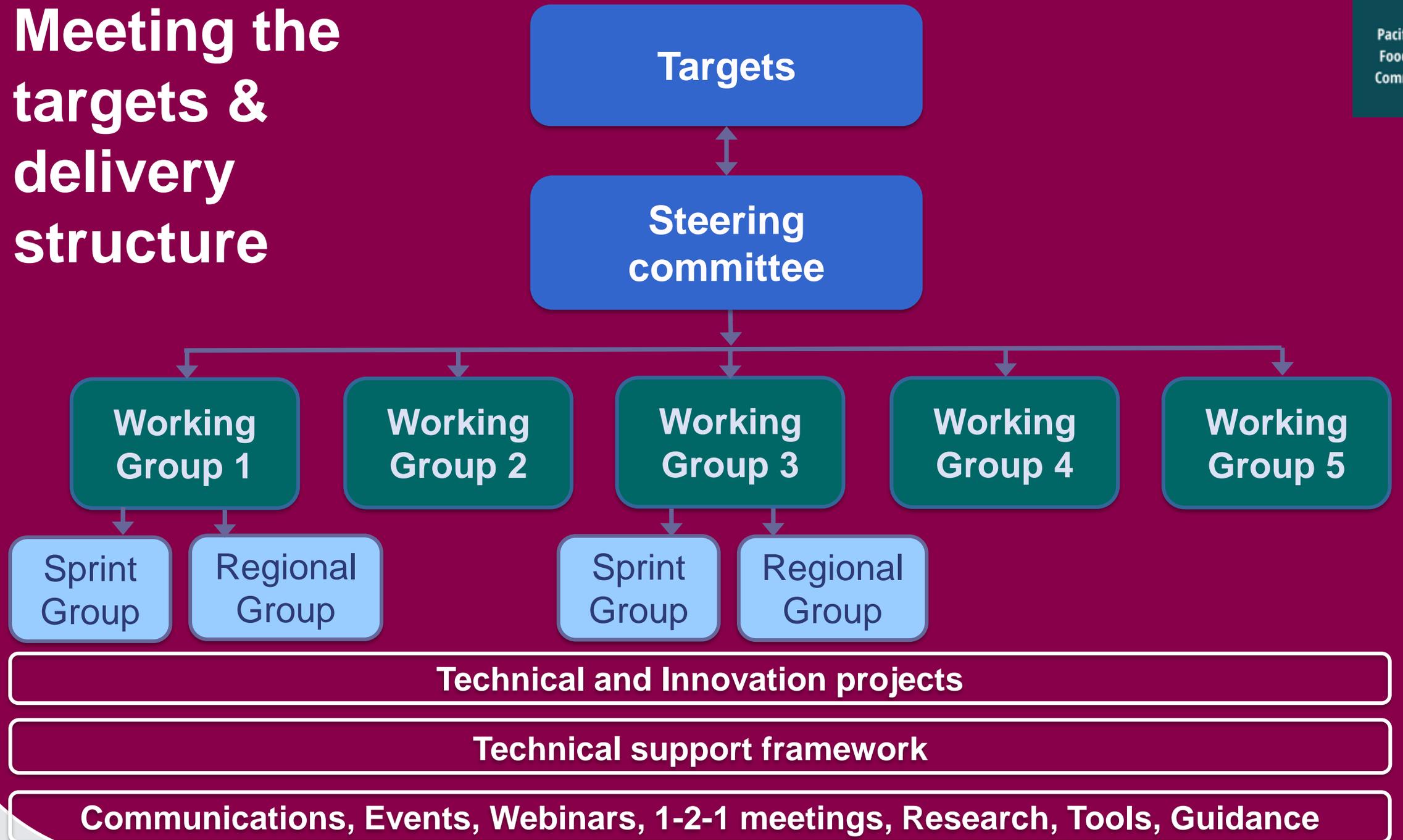
- Pacific Coast Food Waste commitment
- South Africa
- Mexico
- Indonesia
- Australia
- Norway
- Hungary
- Germany
- Spain
- Netherlands
- Brussels
- Denmark
- Sweden

# Our Approach

- Focus on hotspots
- Systemic approach
- Drive innovation
- Share best practice
- Support measurement & confidential reporting



# Meeting the targets & delivery structure



# Meeting the targets & delivery structure

Reduce food waste by 50% by 2030

Steering committee

Recruitment and Engagement

Measurement and reporting

Fresh produce

Diary Working group

Policy roundtable

Rescue working group

6 retailers + 1 verbal. 1 trade assoc

1-2-1 support for signatories

Training; Best practice guides

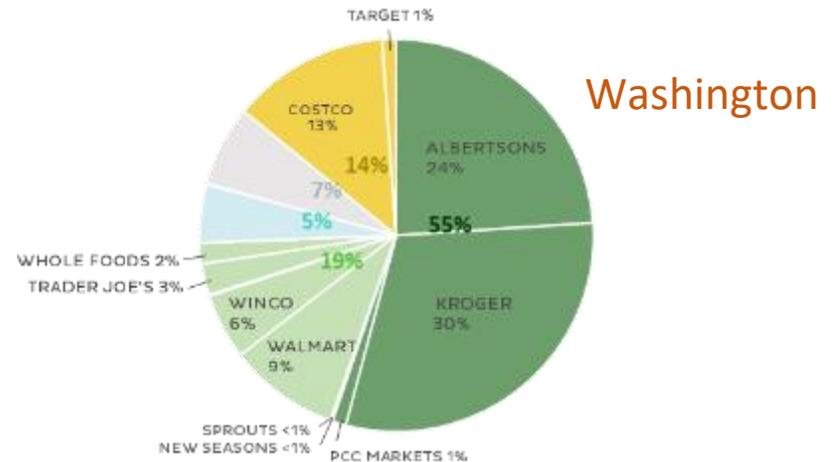
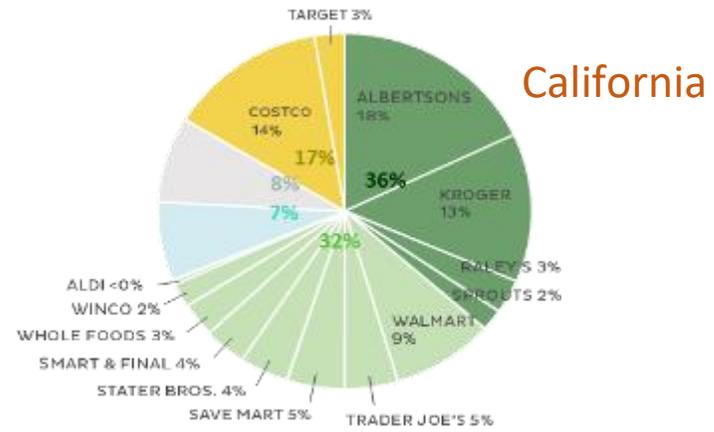
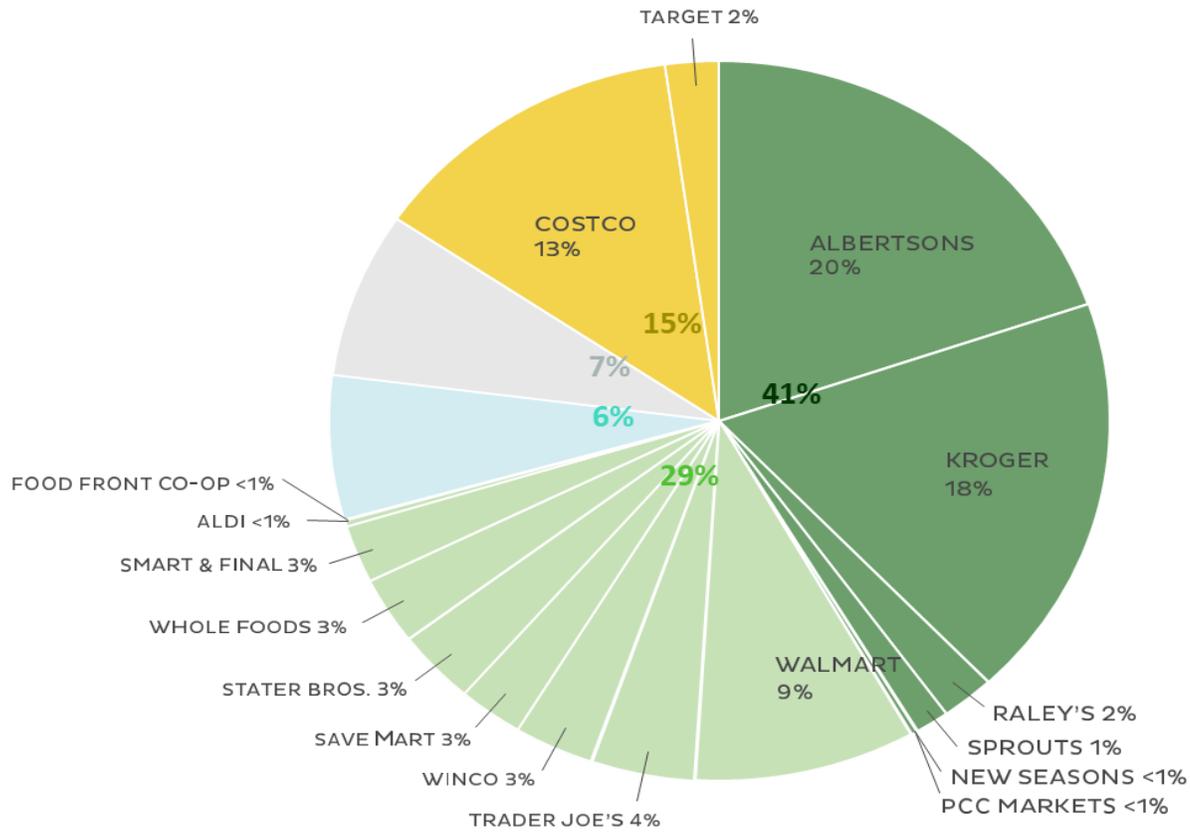
Measurement sprint

Technical and Innovation projects – AI driven procurement

Technical support framework - including WWF and WRAP experts

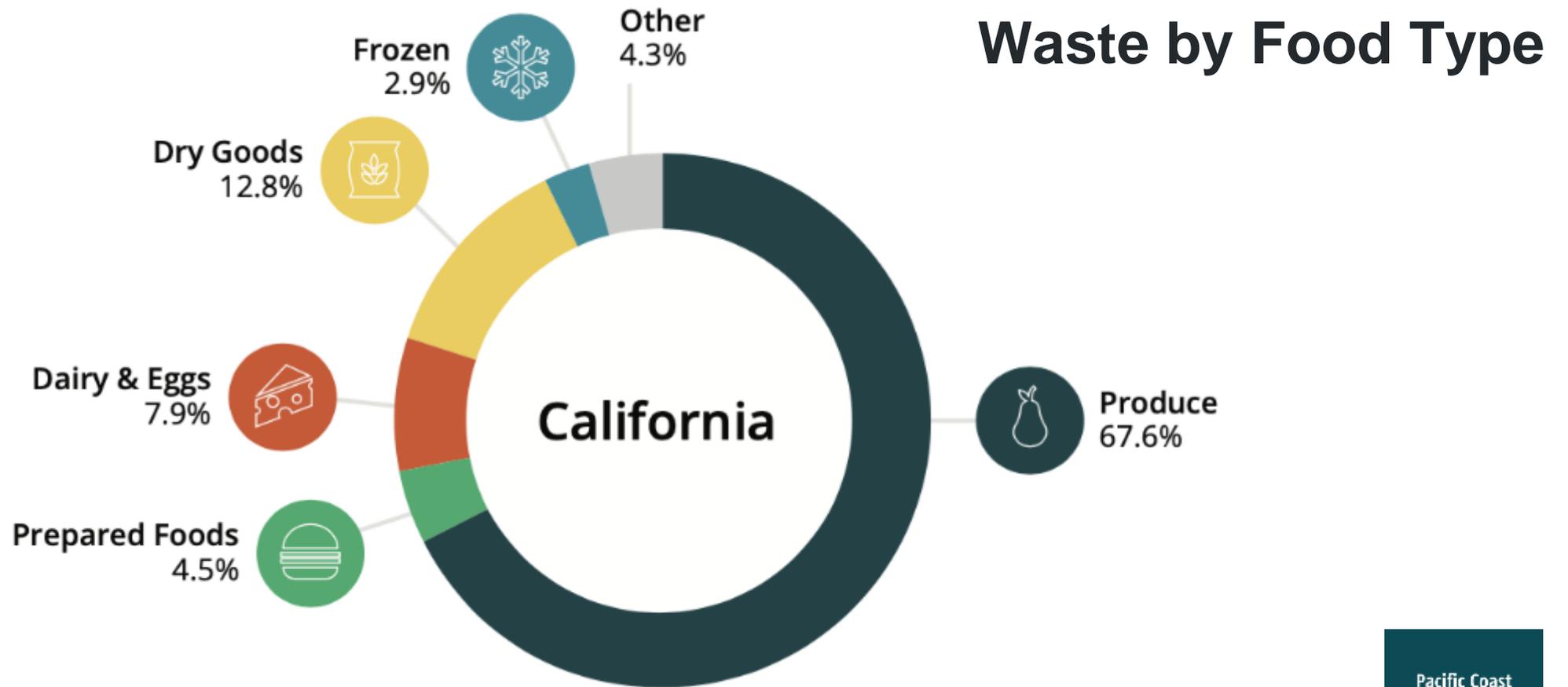
Communications, Events, Webinars, 1-2-1 meetings, Research, Tools, Guidance

# Market Share of Retailers



Market share defined by sales within specified market during 2019. Data purchased and sorted by ReFED from Nielsen Data.

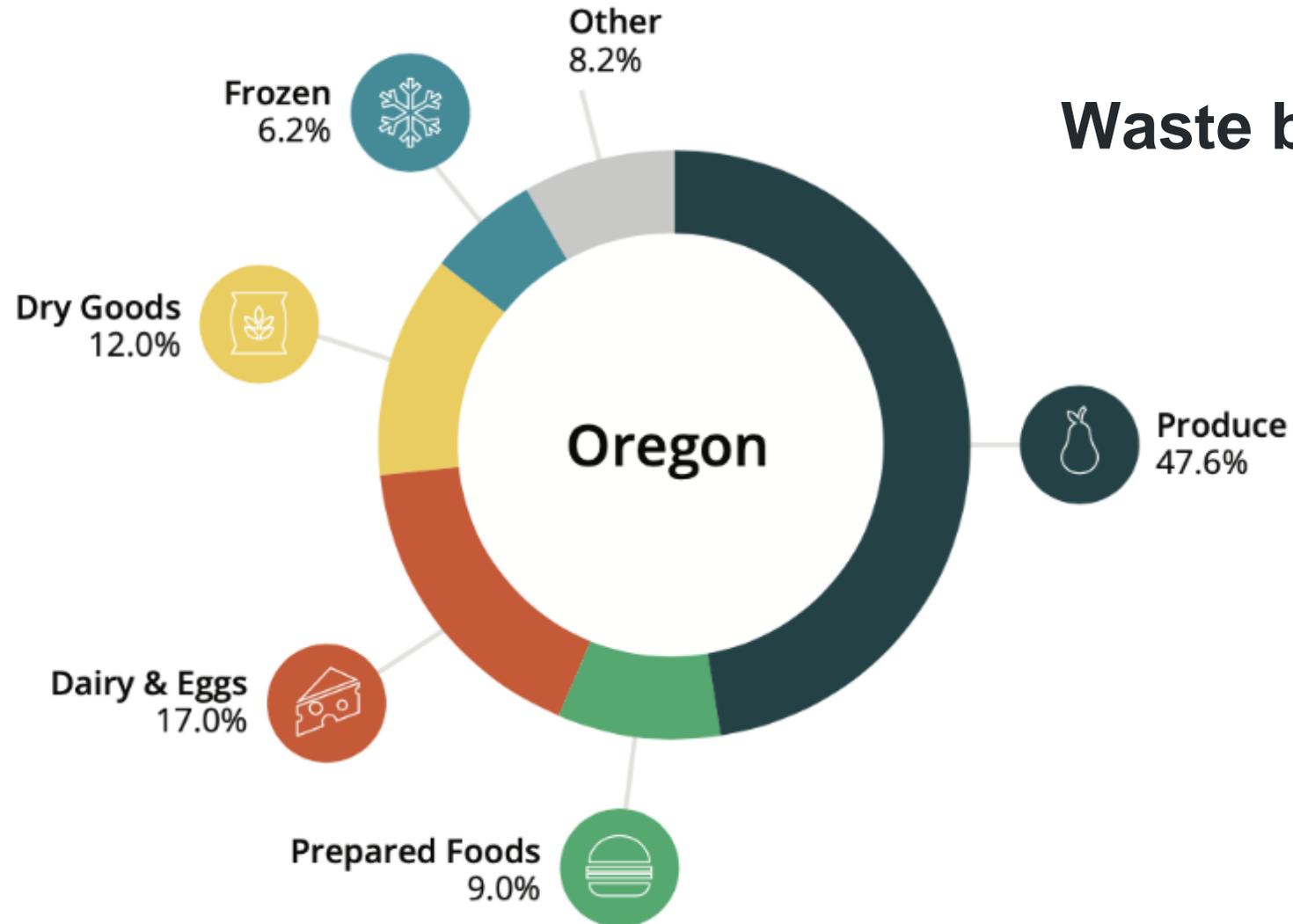
# CALIFORNIA: 10,400,000 Tons of Food Waste



Source: [ReFED Insights Engine \(2019 Data\)](#)

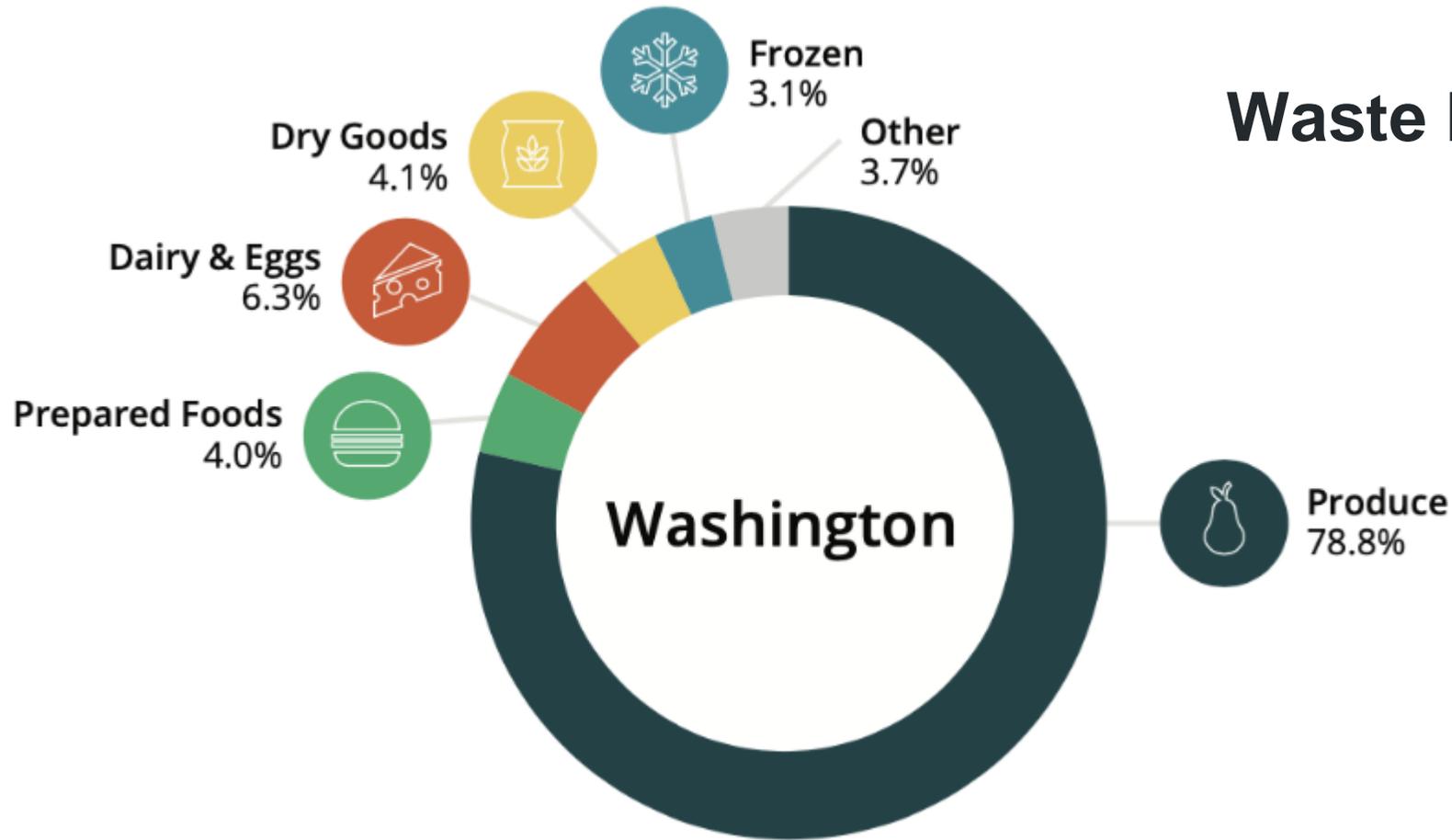
Pacific Coast  
Food Waste  
Commitment

# OREGON: 648,000 Tons of Food Waste



Source: [ReFED Insights Engine \(2019 Data\)](#)

# WASHINGTON: 2,350,000 Tons of Food Waste



Source: [ReFED Insights Engine \(2019 Data\)](#)

# Key Milestones

- Food Waste Reduction project 2020 Project Planning meeting
- Soft Launched in March 2020
- COVID-19
- Measurement and Reporting working Group
- Recruitment and Engagement working Group
- Retailer recruitment
- Hotspots identified
- Diary working Group
- Produce working Group
- Policy roundtable
- Rescue working group
- Initiate manufacturer recruitment and engagement
- First sprint projects initiated



# Co-op



## How we do business responsibly – a holistic approach to tackling food waste



### Playing our part

A look at the strategy and practices that enable Co-op to adopt the principles of the UK Food Waste Reduction Roadmap – *Target, Measure, Act*.

#### Key facts

- Reduced food waste by 29% since 2015.
- Committed to UK Food Waste Reduction Roadmap
- Courtauld 2025 signatory.
- Working towards United Nations Sustainable Development Goal 12.3.
- Adopted food and drink waste hierarchy.

Overview/ foreword	Target	Measure	Act	Lessons learnt / Q&As
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# Act – Technical intervention



Co-op has been working directly with suppliers to identify, pilot and embed technical interventions that reduce food waste and extend shelf life.

Examples include:

- Including edge pieces in packs of brownies and flapjacks cuts waste up to 4%.
- Sandwich project: changing ways of working to capture all the filling first time – e.g. in a BLT sandwich, putting the mayonnaise on both slices of bread so more filling sticks and less falls out onto the belt.
- Ready Meal work to reduce food waste:
  - Including ends of aubergine in moussaka
  - Reviewing line standards
  - Aligning raw materials to reduce food waste on line change-over e.g. moving all core Italian lines to non-egg pasta to match other factory production.
- Using different cuts of pork in savoury snacking lines to reduce animal waste and ensure carcass utilisation.

# Act – Managing food surplus from store



In May 2018, Co-op launched [Co-op Food Share](#) - a new, national food redistribution programme that enables stores to partner with local community groups to donate surplus good quality food.

Achievements to date:

- **Over 1,100 stores with Food Share Partnerships donating to nearly 800 local community groups\***
- Over 2.8 million products donated
- Best Before & Use By products donated allowing for a higher volume of nutritional food donated to the community
- Reduction in back haul costs
- Estimated reduction of 20%-30% of store level food waste.

*\*as of 7<sup>th</sup> May 2019*



# Concluding thoughts

- The challenge is huge
- Collaboration is key
- Collectively, we know how to reduce food waste
- We've made a great start
- Need to scale up faster-2030 is not far away



# Thank you

[www.wrap.org.uk](http://www.wrap.org.uk)

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Pacific Coast  
Food Waste  
Commitment

[pacificcoastcollaborative.org/food-waste/](http://pacificcoastcollaborative.org/food-waste/)



# Advancing Data-Driven Solutions to Reduce Food Waste

ReFED's Insights Engine and *Roadmap to 2030*

PRESENTED BY  
Dana Gunders

West Coast Materials Mgmt Forum  
June 8, 2021



# Who We Are

ReFED is a national nonprofit working to end food loss and waste across the food system by advancing data-driven solutions to the problem.

# Our Vision

A sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow.



## DATA & INSIGHTS

Leveraging data and insights to highlight supply chain inefficiencies and economic opportunities



## CAPITAL & INNOVATION

Catalyzing capital to spur innovation and scale high-impact initiatives



## STAKEHOLDER ENGAGEMENT

Mobilizing and connecting supporters to take targeted action

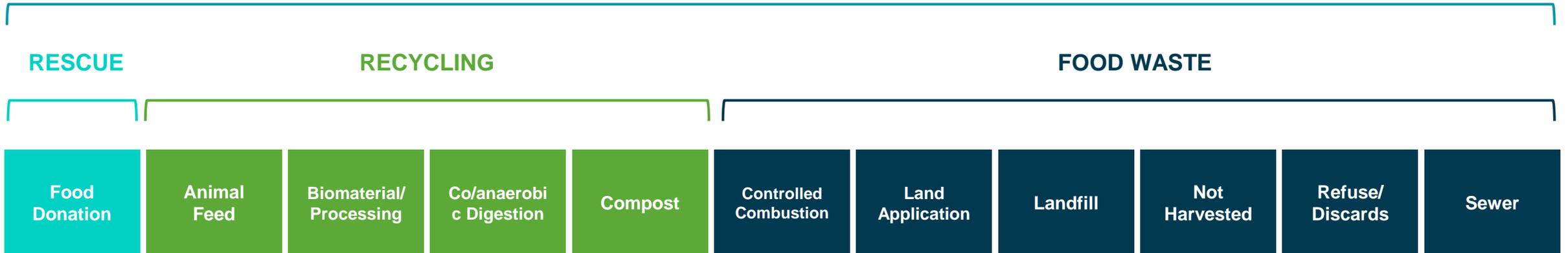
# ReFED's New Analysis



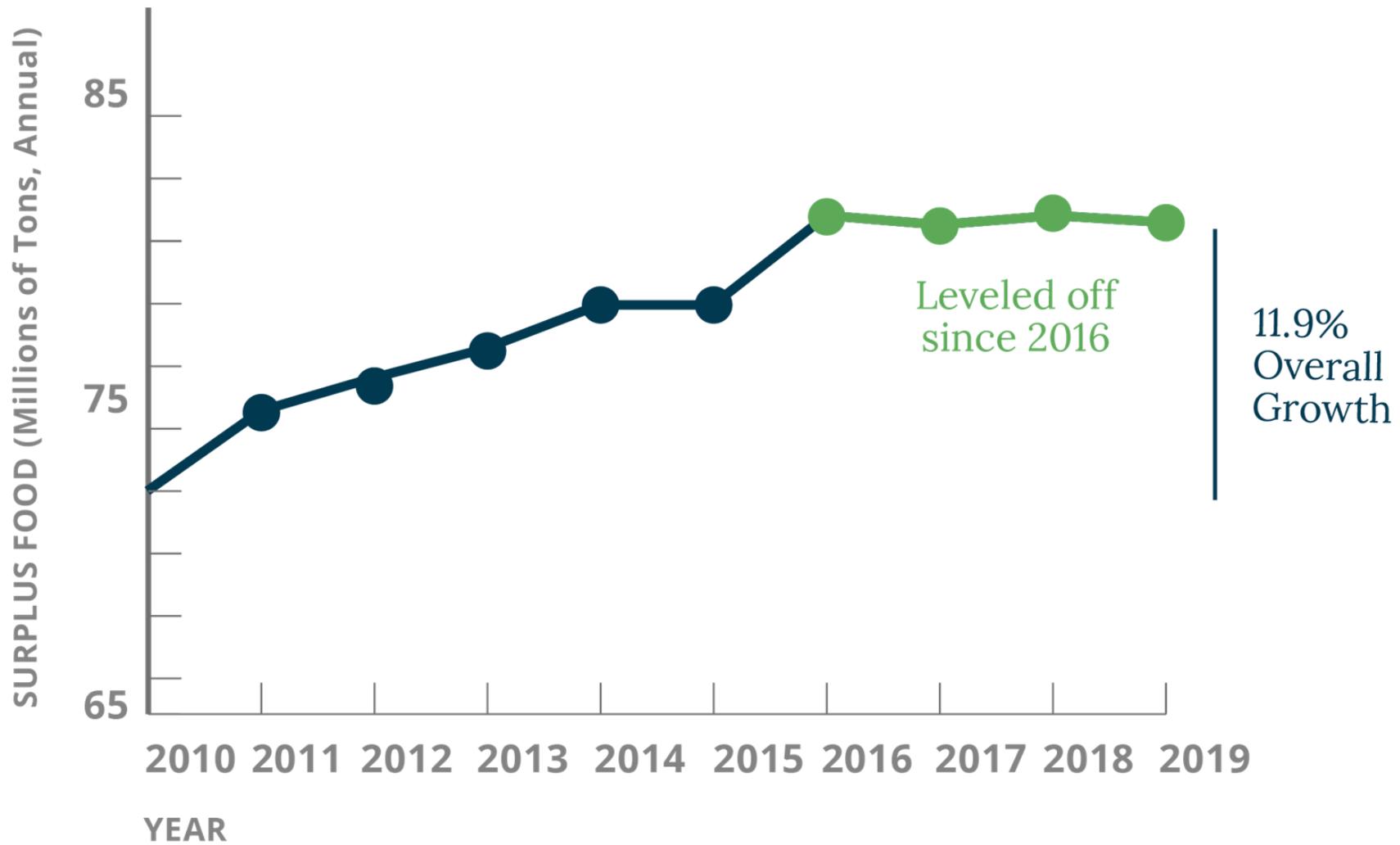
## What is “Surplus Food”?

All food that goes *unsold* or *unused* by a business or that goes *uneaten* at home – including food and inedible parts (e.g., peels, pits, bones) that are fed to animals, repurposed to produce other products, composted, or anaerobically digested. It also includes food that is *donated*.

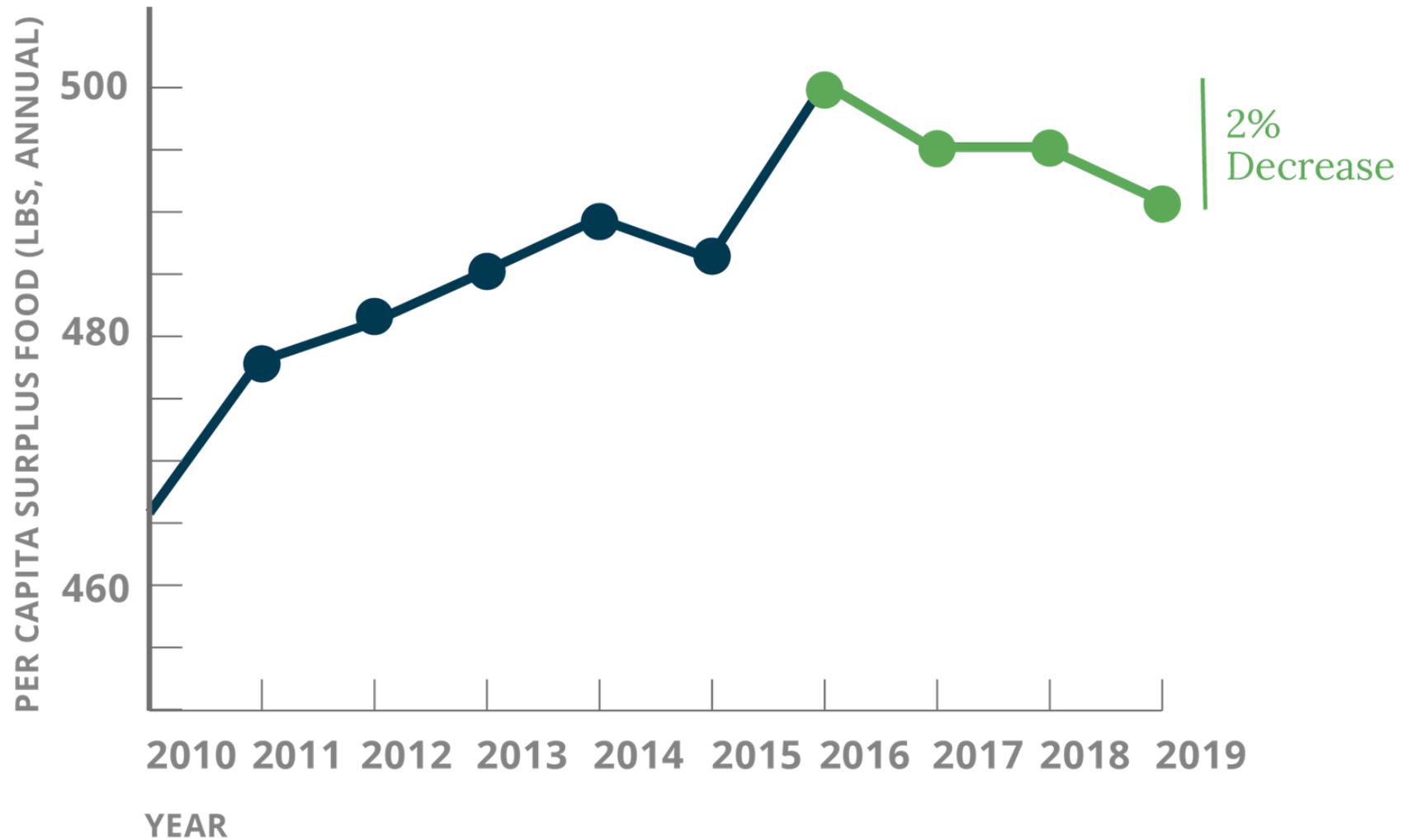
### SURPLUS FOOD

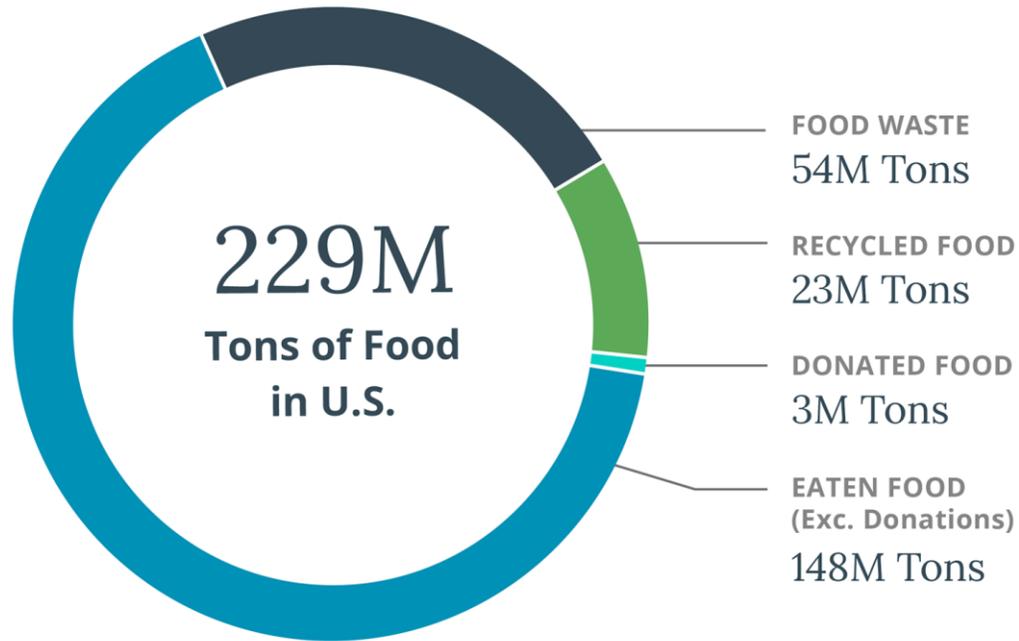


# Surplus food has leveled off since 2016...

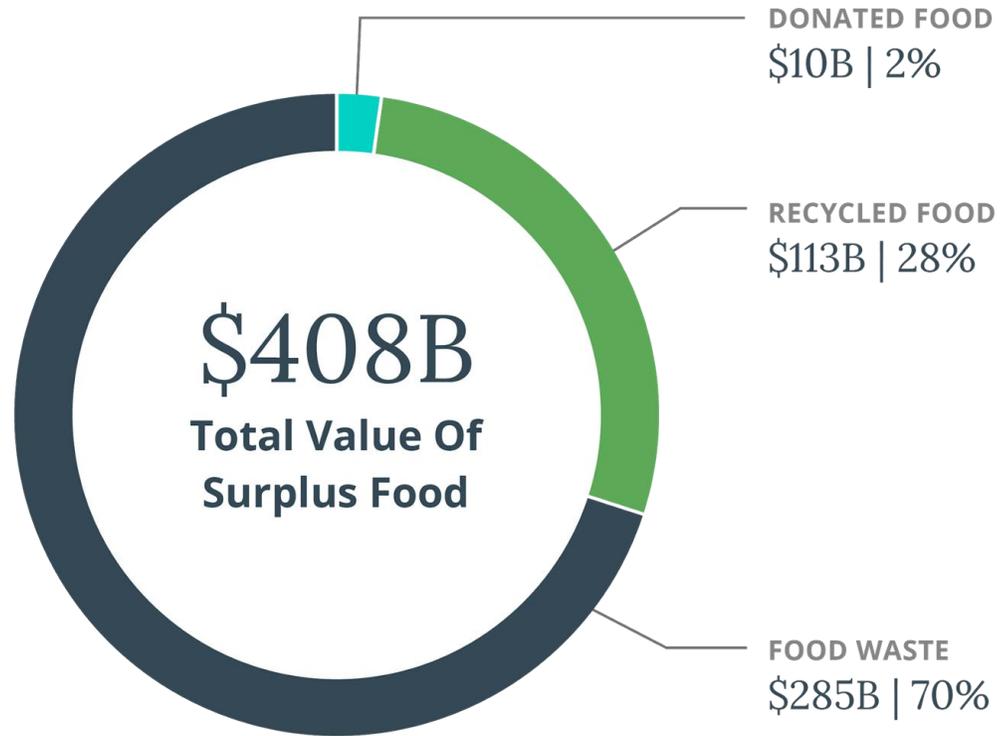


And *per capita* surplus food has actually declined to 2014 levels.





35% of all food went  
unsold or uneaten in  
2019...

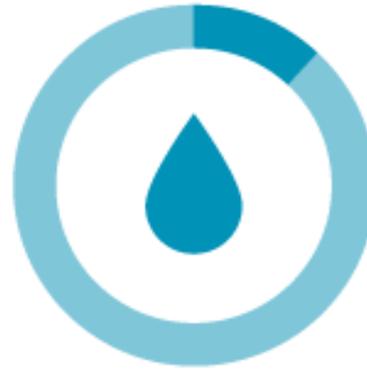


That surplus food was valued at \$408 billion – nearly 2% of U.S. GDP.

# Impacts of Uneaten Food: Environmental



**4%**  
of U.S. GHG  
Emissions



**14%**  
of all  
Fresh Water Use



**18%**  
of all  
Cropland Use



**24%**  
of Landfill Inputs  
**#1 material** (EPA Estimate)

# More Key Findings

## **Edible, unharvested produce left on farms:**

More than 50% of the produce left behind on farms in 2019 was actually edible; That's enough fruits and vegetables to theoretically provide each food insecure American with 4 servings per day.

## **Food left on plates at restaurants:**

70% of surplus in foodservice comes from customers not eating everything they're served. This is an issue we have not begun to tackle at all yet.

## **Food thrown out in home kitchens:**

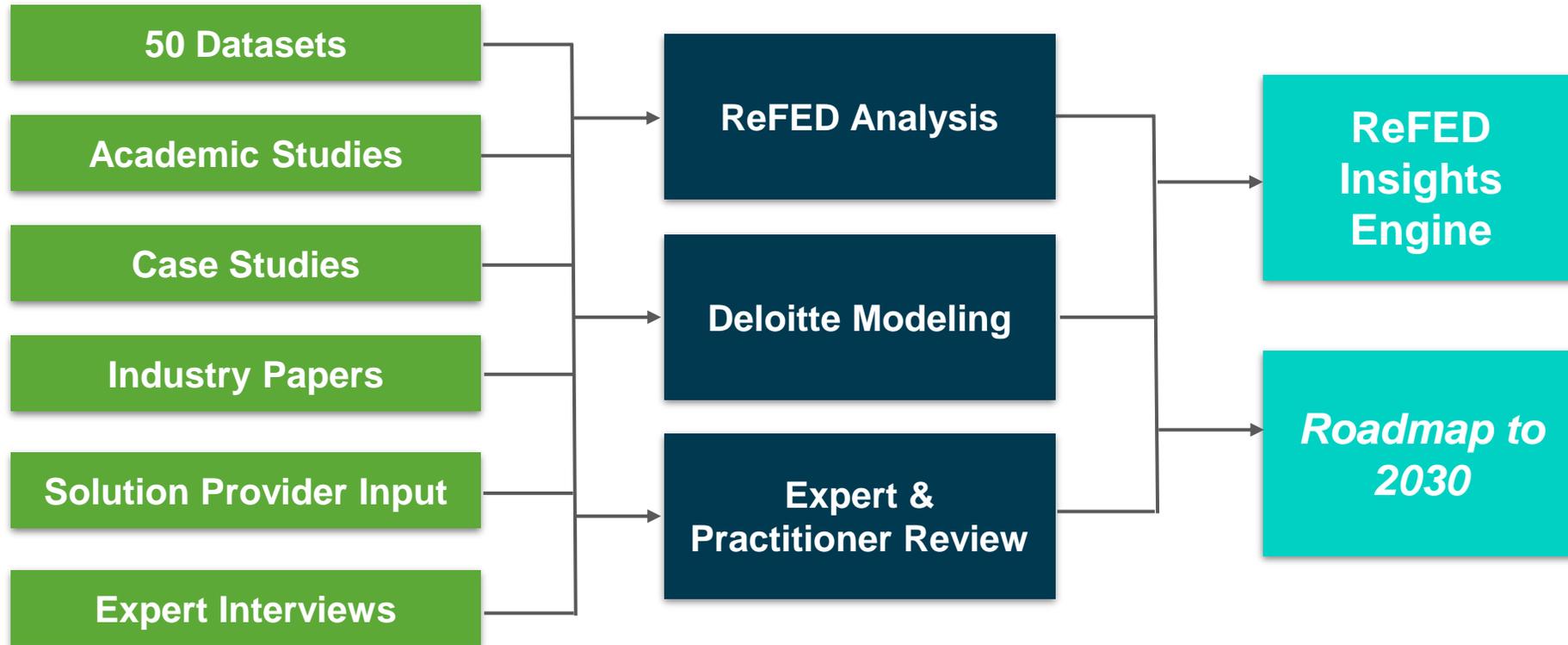
The residential sector is still the largest source of food waste overall and also has an even bigger greenhouse gas footprint given the added energy required to get food from farm to home.



# Reaching Our 2030 Goal



# What We Did...



# The Tools

**ReFED  
Insights  
Engine**

**Understand the Problem**  
Food Waste Monitor

**Analyze & Prioritize Solutions**  
Solutions Database

**Find Solution Providers**  
Solution Provider Directory

**Calculate Impact**  
Impact Calculator

***Roadmap to  
2030***

**7 Key Action Areas**

**40+ Modeled & Unmodeled  
Solutions**

**Financing, Policy, Innovation, &  
Engagement Recommendations**

**User-Specific Guidance**

## WHAT'S NEEDED

**40+**  
SOLUTIONS

**\$14B**  
INVESTMENT ANNUALLY

POLICY CHANGES

INNOVATION

ENGAGEMENT

## WASTE REDUCTION

**45M**  
ANNUAL FOOD WASTE  
DIVERSION (TONS)

## IMPACT PER YEAR

 **\$73B** NET FINANCIAL BENEFIT

 **4T** GALLONS IN WATER SAVINGS

 **75M** TONS GHG EMISSION REDUCTION  
POTENTIAL (MT CO<sub>2</sub>e)

 **4B** MEALS FOR PEOPLE IN NEED

 **51K** JOBS CREATED THROUGH SOLUTION  
IMPLEMENTATION OVER 10 YEARS

# A Blueprint for Action

The *Roadmap to 2030* looks at the entire food system and provides a framework to focus waste reduction efforts. Powered by the Insights Engine, the *Roadmap to 2030* is an indispensable resource for reaching our 2030 goal.

# 7

ReFED outlined seven key action areas for the food system to focus its efforts over the next ten years to *prevent*, *rescue*, and *recycle* food at risk of going to waste.

## PREVENTION

## RESCUE

## RECYCLING



Optimize  
The  
Harvest



Enhance  
Product  
Distribution



Refine  
Product  
Management



Maximize  
Product  
Utilization



Reshape  
Consumer  
Environments



Strengthen  
Food  
Rescue



Recycle  
Anything  
Remaining

### Action Areas



#### OPTIMIZE THE HARVEST

Avoid over-production, then harvest as much as possible. For wild caught products, source only what is needed.



#### ENHANCE PRODUCT DISTRIBUTION

Leverage technology to create smart systems that help efficiently move products to maximize freshness and selling time.



#### REFINE PRODUCT MANAGEMENT

Align purchases with sales as closely as possible and find secondary outlets for surplus. Build out systems and processes for optimal on-site handling.



#### MAXIMIZE PRODUCT UTILIZATION

Design facilities, operations, and menus to use as much of each product as possible. Upcycle surplus and byproducts into food products.



#### RESHAPE CONSUMER ENVIRONMENTS

Drive consumers towards better food management and less waste by creating shopping, cooking, and eating environments that promote those behaviors. Shift culture to place more value on food and reduce waste.



#### STRENGTHEN FOOD RESCUE

Further the rescue of high-quality, nutritious food by increasing capacity, addressing bottlenecks, and improving communication flow.



#### RECYCLE ANYTHING REMAINING

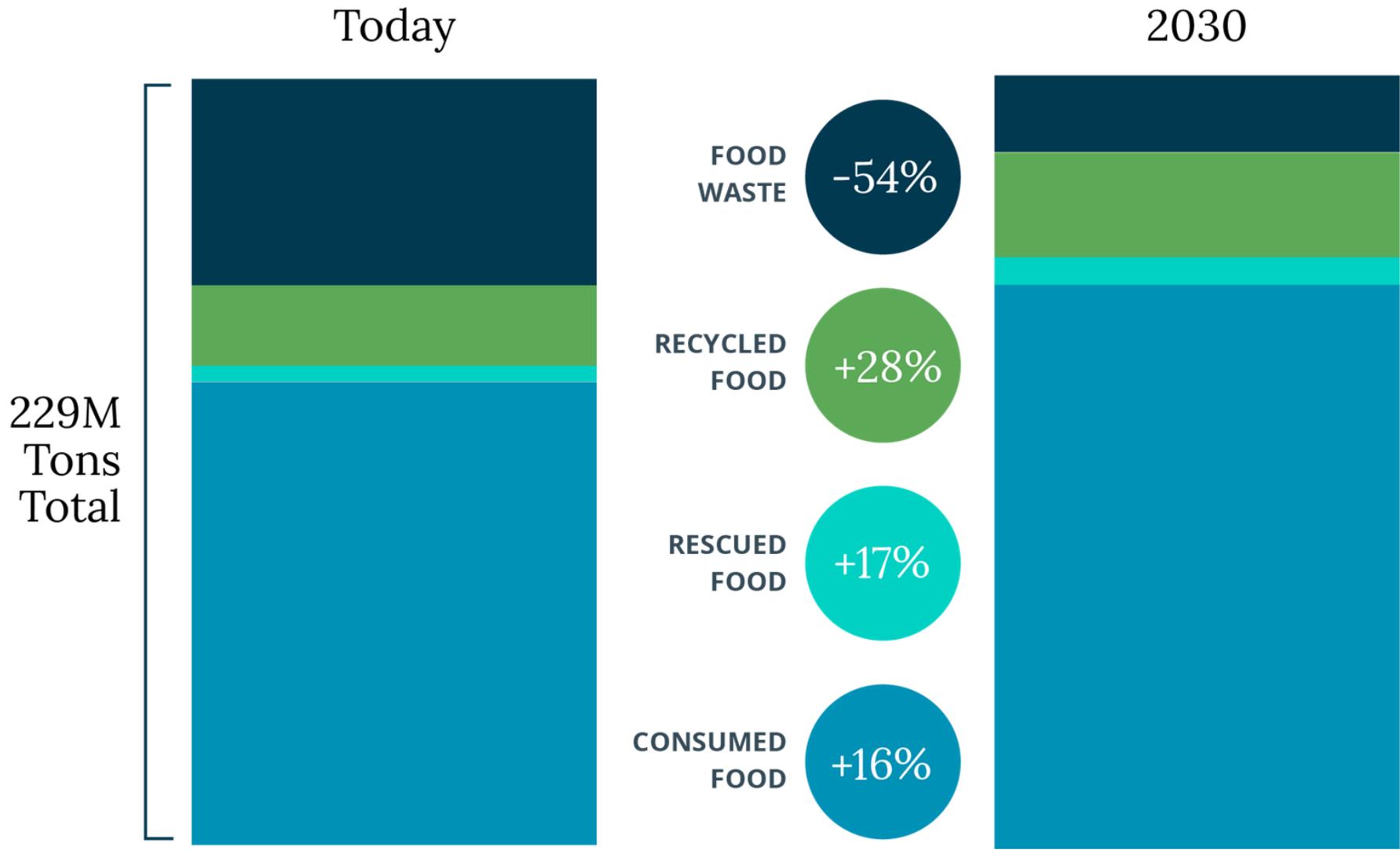
Find the highest and best use for any remaining food or food scraps in order to capture nutrients, energy, or other residual value.

OPTIMIZE THE HARVEST	ENHANCE PRODUCT DISTRIBUTION	REFINE PRODUCT MANAGEMENT	MAXIMIZE PRODUCT UTILIZATION	RESHAPE CONSUMER ENVIRONMENTS	STRENGTHEN FOOD RESCUE	RECYCLE ANYTHING REMAINING
Buyer Spec Expansion	Decreased Transit Time	Assisted Distressed Sales	Active & Intelligent Packaging	Meal Kits	Donation Coordination & Matching	Centralized Anaerobic Digestion
Gleaning	First Expired First Out	Decreased Minimum Order Quantity	Manufacturing Byproduct Utilization (Upcycling)	Buffet Signage	Donation Education	Community Composting
Imperfect & Surplus Produce Channels	Intelligent Routing	Dynamic Pricing	Manufacturing Line Optimization	Consumer Education Campaigns	Donation Storage Handling & Capacity	Centralized Composting
Partial Order Acceptance	Temperature Monitoring (Pallet Transport)	Enhanced Demand Planning	Edible Coatings	K-12 Lunch Improvements	Donation Transportation	Co-digestion at Wastewater Treatment Plants
Field Cooling Units	Reduced Warehouse Handling	Increased Delivery Frequency	Improved Recipe Planning	Package Design	Donation Value-Added Processing	Home Composting
In-Field Sanitation Monitoring	Advanced Shipment Notifications	Markdown Alert Applications	In-House Repurposing	Portion Sizes	Blast Chilling to Enable Donations	Livestock Feed
Innovative Grower Contracts	Early Spoilage Detection (Hyperspectral Imaging)	Minimized On-Hand Inventory	Precision Food Safety	Small Plates	Donation Reverse Logistics	Waste-Derived Agricultural Inputs
Labor Matching	Inventory Traceability	Temperature Monitoring (Foodservice)	Discount Meal Plates	Standardized Date Labels	High-Frequency Reliable Pickups	Insect Farming
Smaller Harvest Lots	Modified Atmosphere Packaging System	Waste Tracking (Foodservice)	Employee Meals	K-12 Education Campaigns	Established Relationships with Businesses	Rendering
Improved Communication for Planting Schedules	Vibration & Drops Tracking	Low Waste Event Contracts	Larger Quantities for Take Home	Trayless	Culling SOPs	Waste-Derived Processed Animal Feed
Sanitation Practices & Monitoring	Optimized Truck Packing, Loading & Unloading (e.g., Cross-Docking)	Direct to Consumer Channels	Small and Versatile Menus	Home Shelf-life Extension Technologies		Waste-Derived Bioplastics
Optimized Harvesting Schedules	Enforcing Cold Chain SOPs	Online Marketplace Platform	Sous-Vide Cooking	Smart Home Devices		Waste-Derived Biomaterials
On-Farm / Near-Farm Processing	Regular Maintenance on Refrigerated Trucks	Online, Advanced Grocery Sales		Waste Conscious Promotions		Enabling Technologies (e.g. depackaging and pre-treatment)
Local Food Systems	Cross-Docking	Precision Event Attendance		Frozen Value-Added Processing of Fresh Produce		Separation & Measurement
Clear Product Ownership		Repackaging Partially Damaged Products		Customizable Menus/Options		Relationships with Waste Haulers
		Retail Automated Order Fulfillment		To-Go Offerings		Waste Audits by Waste Haulers
		SKU Rationalization		Free Items Offered Upon Request (e.g., bread, chips)		
		Markdowns		Storytelling (e.g. product impact, source, upcycled ingredient components)		
		Optimal Storage				
		Reduced Displays				
		Optimized Walk-In Layouts				

Modeled Solutions

Unmodeled Solutions

Best Practices



# Mobilizing Capital is Essential



## Project Finance (Gov't.)

\$714M / 5%

## Tax Incentives (Gov't.)

\$97M / 1%

## Grants (Gov't.)

\$1,024M / 7%

## Grants (Non-Gov't.)

\$1,217M / 9%

## Impact-First Investments

\$909M / 6%

## Venture Capital

\$1,421M / 10%

## Private Equity

\$1,085M / 8%

## Corporate Finance & Spending

\$7,124M / 50%

## Project Finance (Commercial)

\$617M / 4%

# \$3B

## Catalytic Capital

- De-risks new innovation
- Unlocks bottlenecks
- Overcomes agency problems
- Stimulates marginal projects

# ReFED Insights Engine

A knowledge hub for food loss and waste, designed to provide anyone interested in food waste reduction with the information they need to take meaningful action.

Insights Engine tools let users:

- **Understand the problem:** Find out how much food is being wasted in the US, learn why it's happening, and see where it goes.
- **Explore Solutions:** Learn which food waste reduction solutions are the most relevant for meeting specific goals.
- **Find Solution Providers:** Explore our database of 700+ organizations offering products and services to help you reduce food waste.
- **Impact Calculator:** Calculate the environmental and social impacts of wasted food.

Launch the Insights Engine



# U.S. Grocery Retail Food Loss and Waste Calculator

1. **Simplification** - the Calculator requires accessible data inputs (i.e. sales and inventory data) and provides a series of back-end conversion factors to eliminate the weight of packaging and inedible parts, as well as convert retail dollars to pounds.
2. **Automation** - the Calculator auto-populates various reporting templates (i.e ReFED Insights Engine, Atlas, EPA Food Recovery Challenge) based on values reported on a single “Inputs” tab, saving time in total reporting efforts.
3. **Data Security** - the Calculator protects confidential and highly sensitive business data by only requiring the submission of the auto-populated templates and not the input data. This is strengthened by a highly secure data upload and storage platform.



Coming soon....

# U.S. Food Manufacturing Food Loss and Waste Calculator

**ReFED DRAFT**

**MANUFACTURING FOOD LOSS AND WASTE CALCULATOR**

**INTRODUCTION**

**About ReFED**  
ReFED is a national nonprofit working to end food loss and waste across the food system by advancing data-driven solutions to the problem. ReFED leverages data and insights to highlight supply chain inefficiencies and economic opportunities; mobilizes and connects people to take targeted action; and catalyzes capital to spur innovation and scale high-impact initiatives. ReFED's goal is a sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow. For more information, visit [www.refed.com](http://www.refed.com).

**About this Calculator**  
In an effort to simplify food waste measurement and reporting for food manufacturers, ReFED has developed this calculator that intakes food manufacturer data and automatically calculates food waste metrics and populates reporting templates from multiple organizations, including ReFED, the Food Waste Atlas from WRAP and World Resources Institute, and the U.S. EPA Food Recovery Challenge.

Once you input the data requested on the REQUIRED INPUT tabs 1-7, the subsequent reporting template tabs R1-R4 will be automatically populated, making it easy for your business to report to any one of these platforms. For a more accurate report, you can override the default values listed in the CUSTOM CONFIGURATION tabs C1-C3. The data you input to the REQUIRED INPUT and CUSTOM CONFIGURATION tabs will NOT be shared with anyone. It will stay on your computer. The only data that will be shared is the data in the reporting templates.

**Acknowledgements**

Contract Partners and Data Contributors:

**Outline**

- INTRODUCTION
- REQUIRED INPUTS
- CUSTOM CONFIGURATION
- GUIDANCE
- RESULTS DASHBOARD
- REPORTING TEMPLATES
- [ReFED Insights Engine](#)
- [WRAP/WRI Food Waste Atlas Capture Sheet](#)
- [WRAP/WRI Food Waste Atlas Template](#)
- [U.S. EPA Food Recovery Challenge](#)

**Navigation:** INTRO | 1. GENERAL INFO | 2. PRODUCT CATEGORIZATION | 3. INGREDIENT CATEGORIZATION | 4. INGREDIENT DATA | 5. RECIPES | 6. FINISHED PRODUCT DATA | 7. DESTINATIONS | DATA CHECKS

# Stay Connected



@refed

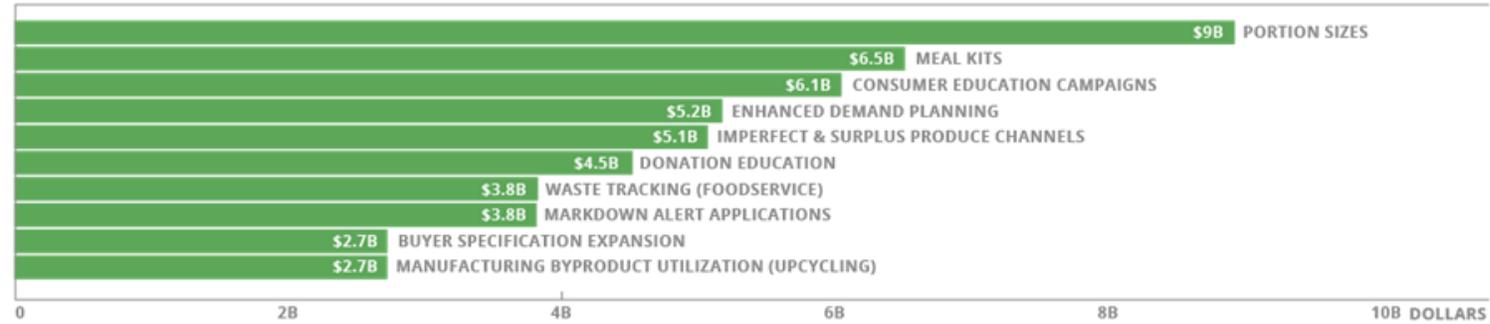
[refed.com](https://refed.com)

[insights.refed.com](https://insights.refed.com)

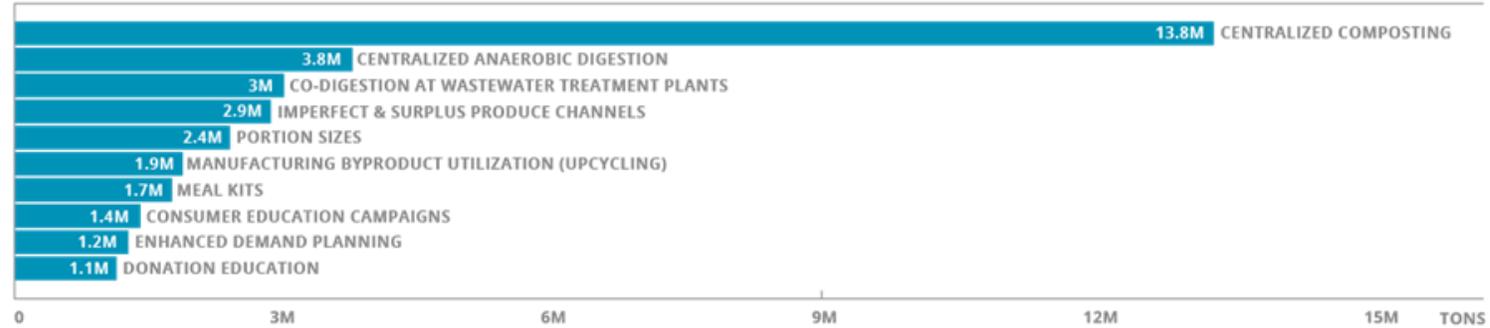




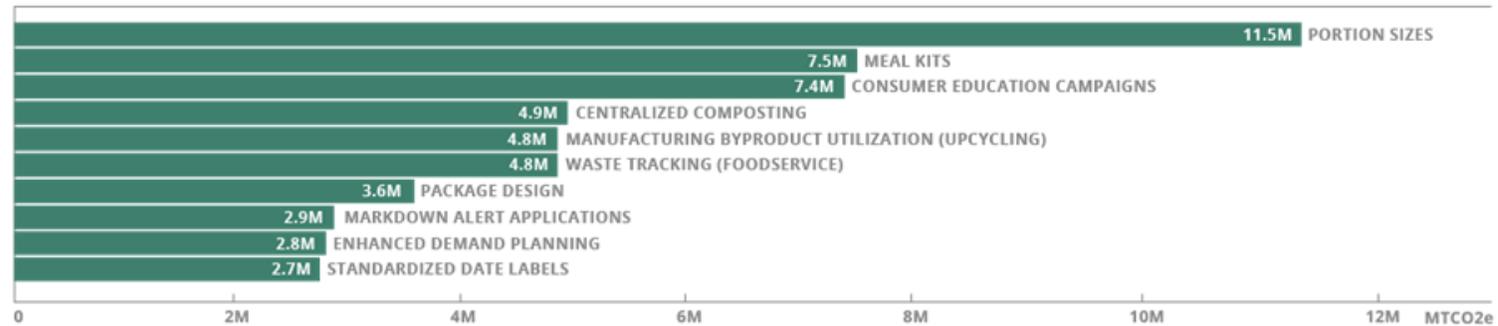
### Top Ten Solutions | NET FINANCIAL BENEFIT



### Top Ten Solutions | TONS WASTE DIVERTED



### Top Ten Solutions | GHG EMISSIONS AVOIDED IN MTCO2e





STAKEHOLDER  
**Retailers**

# Top 10 Solutions in the Insights Engine

## Total Net \$

- Enhanced Demand Planning
- Reduced Warehouse Handling
- Minimized On-Hand Inventory
- Active & Intelligent Packaging
- Decreased Minimum Order Quantity
- Increased Delivery Frequency
- First Expired/First Out
- Temperature Monitoring (Pallet Transport)
- Decreased Transit Time
- Markdown Alert Applications

## Net \$/Ton

- Enhanced Demand Planning
- Decreased Transit Time
- Intelligent Routing
- First Expired/First Out
- Imperfect & Surplus Produce Channels
- Temperature Monitoring (Pallet Transport)
- Markdown Alert Applications
- Buyer Specification Expansion
- Minimized On-Hand Inventory
- Decreased Minimum Order Quantity

## Total Tons

- Imperfect/Surplus Produce Channels
- Meal Kits
- Consumer Education Campaigns
- Enhanced Demand Planning
- Centralized Composting
- Intelligent Routing
- Decreased Transit Time
- Buyer Specification Expansion
- First Expired/First Out
- Standardized Date Labels

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STAKEHOLDER  
**Retailers**

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Consumer Education Campaigns  
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Temperature Monitoring (Pallet Transport)  
Dynamic Pricing  
Markdown Alert Applications



STAKEHOLDER  
**Retailers**

# Key Opportunities

1/ Enhanced Demand Planning	\$5.2B Net Financial Benefit	1.2M Food Waste Tons Diverted
2/ Enhanced Product Distribution	\$8.3B Net Financial Benefit (Total)	3.3M Food Waste Tons Diverted
3/ Meal Kits	\$6.5B Net Financial Benefit	1.7M Food Waste Tons Diverted
4/ Produce Line Expansion	\$5.1B Net Financial Benefit	2.9M Food Waste Tons Diverted
5/ Markdown Alert Applications	\$3.8B Net Financial Benefit	771K Food Waste Tons Diverted

## Links for More Information

- ❑ [www.pacificcoastcollaborative.org](http://www.pacificcoastcollaborative.org)
- ❑ [www.pacificcoastcollaborative.org/food-waste/](http://www.pacificcoastcollaborative.org/food-waste/)
- ❑ [www.wrap.org.uk](http://www.wrap.org.uk)
- ❑ [www.refed.com](http://www.refed.com)
- ❑ [bit.ly/JoinReFEDFWAN](http://bit.ly/JoinReFEDFWAN)
- ❑ [www.worldwildlife.org/initiatives/food](http://www.worldwildlife.org/initiatives/food)
- ❑ [www.oregon.gov/deq/mm/food/Pages/foodwastestrategy.aspx](http://www.oregon.gov/deq/mm/food/Pages/foodwastestrategy.aspx)



# THANK YOU!

For more information, visit [www.westcoastclimateforum.com](http://www.westcoastclimateforum.com)



**West Coast Climate**  
& Materials Management Forum