



# ReFED's Roadmap to Reduce U.S. Food Waste

Presented by

**Chris Hunt**

*Senior Advisor, ReFED*



**ReFED**

**Rethink Food Waste**  
*Through Economics & Data*

ReFED is a nonprofit collaboration formed in 2015 of over 50 business, nonprofit, foundation, and government leaders committed to reducing U.S. food waste.

ReFED Steering Committee, Advisory Council, and *Roadmap* Team:



A top-down view of various fresh produce including carrots, onions, apples, and bell peppers. The items are scattered across a white background. There are several orange carrots of different sizes and shapes, some whole onions, a few green and red apples, and several bell peppers in red and green. The produce is arranged in a somewhat circular pattern around the central text box.

**Every year, American consumers, businesses, and farms spend \$218 billion (~1.3% of GDP) on food that's never eaten.**

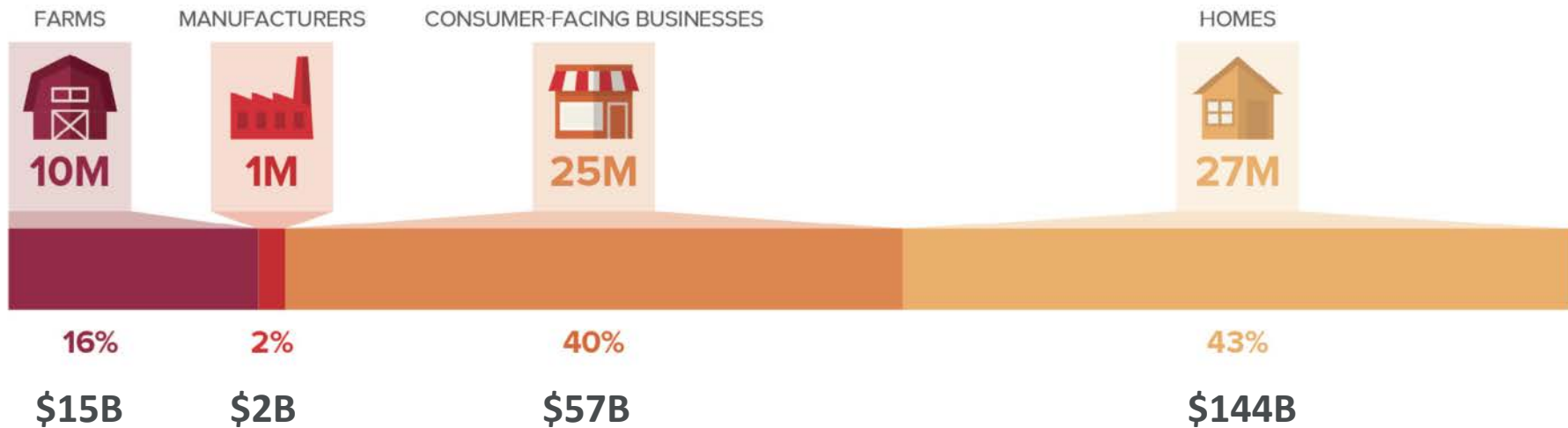
**This waste represents 18% of cropland, 19% of fertilizer, 21% of freshwater, and 5% of GHG emissions.**



# ReFED Food Waste Baseline: Nearly 63M tons of waste per year



## FOOD WASTED BY WEIGHT — 63 MILLION TONS (\$218 billion)





# Data Analysis: 13M tons of potential (20%)

---

## Prevention

Stopping waste from occurring in the first place

12 solutions

*Most Cost Effective*

## Recovery

Redistributing food to people

7 solutions

*Best at Alleviating Hunger*

## Recycling

Repurposing waste as energy and agricultural products

8 solutions

*Greatest Diversion Potential*



### REDUCE 13.2 M TONS

■ PREVENTION: 2.6 M TONS

■ RECOVERY: 1.1 M TONS

■ RECYCLE: 9.5 M TONS

# 27 Solutions Evaluated

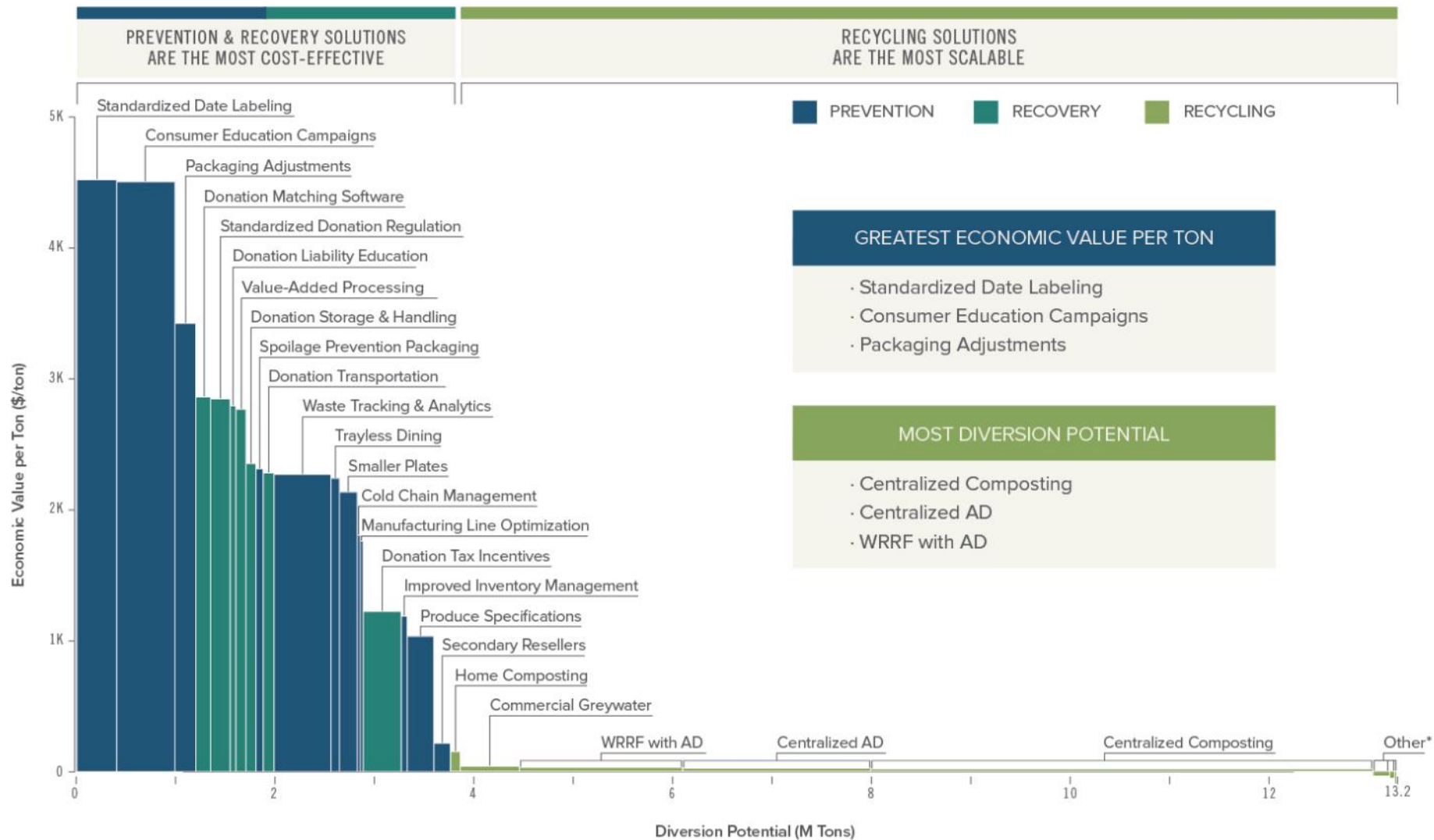
Prevention Solutions	
Packaging, Product & Portions	<b>Standardized Date Labeling</b>
	Packaging Adjustments
	Spoilage Prevention Packaging
	Produce Specifications (Imperfect Produce)
	Smaller Plates
	Trayless Dining
Operational & Supply Chain Efficiency	<b>Waste Tracking &amp; Analytics</b>
	Cold Chain Management
	Improved Inventory Management
	Secondary Resellers
	Manufacturing Line Optimization
Consumer Education	<b>Consumer Education Campaigns</b>

Recovery Solutions	
Donation Infrastructure	<b>Donation Matching Software</b>
	Donation Storage & Handling
	Donation Transportation
	Value-Added Processing
Donation Policy	Donation Liability Education
	<b>Standardized Donation Regulation</b>
	<b>Donation Tax Incentives</b>

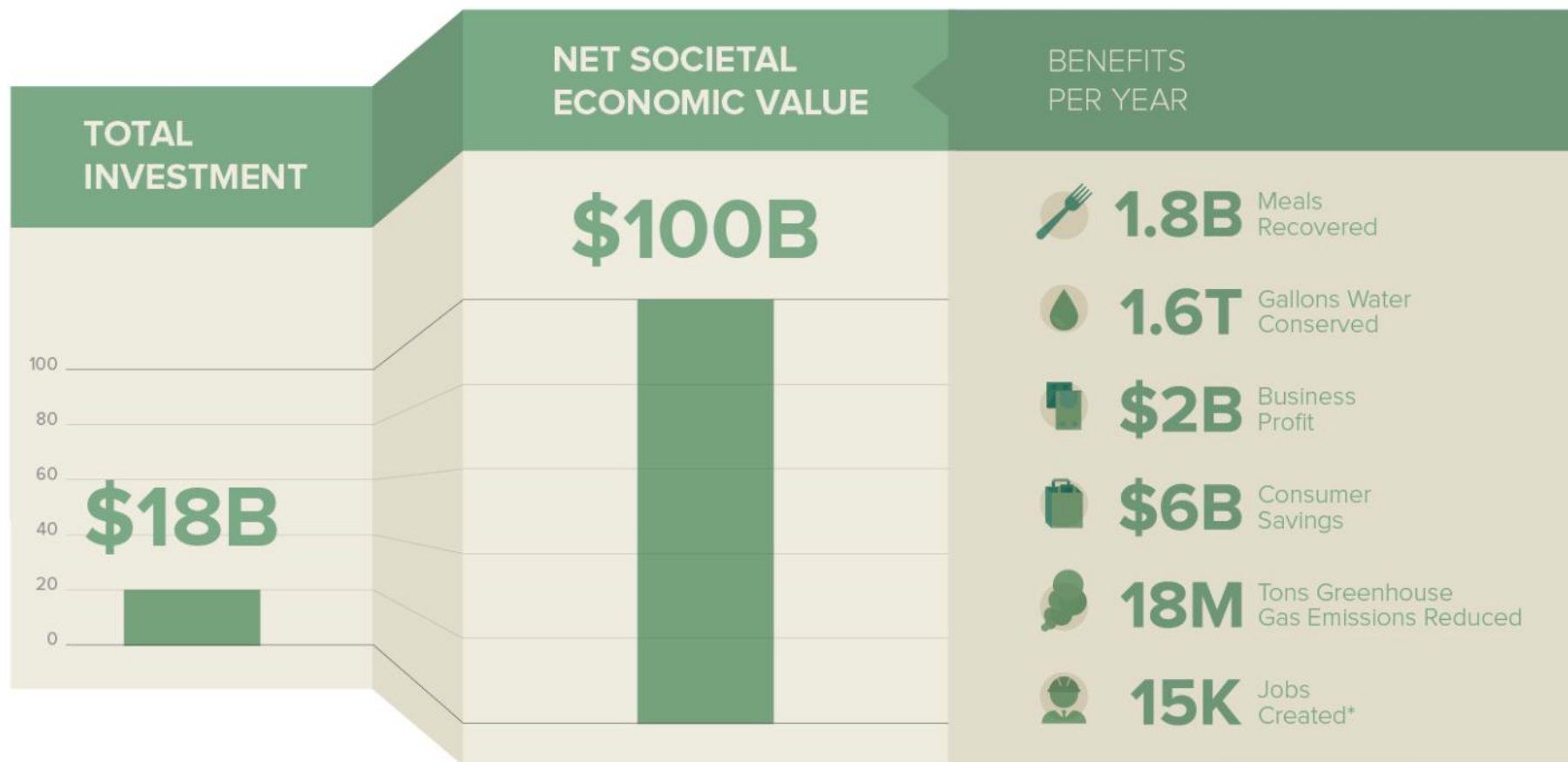
Recycling Solutions	
Energy & Digestate	<b>Centralized Anaerobic Digestion (AD)</b>
	Water Resource Recovery Facility (WRRF) with AD
On-Site Business Processing Solutions	In-Vessel Composting
	Commercial Greywater
Agricultural Products	Community Composting
	<b>Centralized Composting</b>
	Animal Feed
	Home Composting

**Criteria for Selection**  
*Available Data*  
*Cost effective*  
*Feasible*  
*Scalable*

# MARGINAL FOOD WASTE ABATEMENT COST CURVE



# AN \$18 BILLION INVESTMENT IN 27 SOLUTIONS TO REDUCE U.S. FOOD WASTE BY 20% WILL YIELD \$100 BILLION IN SOCIETAL ECONOMIC VALUE OVER A DECADE







# Levers to Drive Action Across all Stakeholders

Four crosscutting actions needed to quickly cut 20% of waste and put the U.S. on track to achieve a broader 50% food waste reduction goal by 2030.



## POLICY

Commonsense tweaks leading to standardized national policy



## FINANCING

New catalytic capital and quantified non-financial impacts



## INNOVATION

5 focus areas and innovation incubator networks



## EDUCATION

National Consumer and Employee campaigns

# Innovation

## PREVENTION

For Profit

NGO

For Profit

## RECOVERY

NGO

IT Platform

## RECYCLING

Compost/Product

Waste-to-Energy

## HUNGER RELIEF

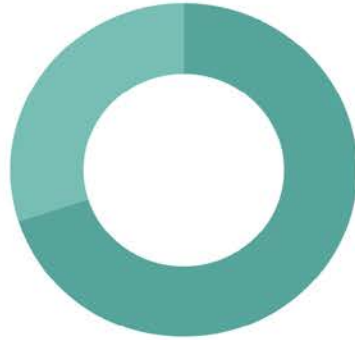


# FOOD WASTE INNOVATORS BY THE NUMBERS

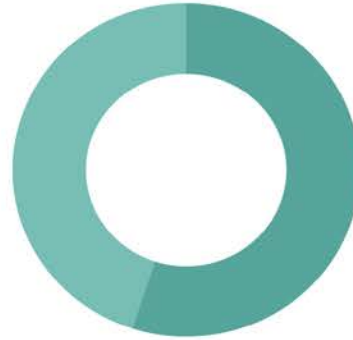
The Innovator Database categorizes hundreds of innovators by location, business structure, and solution focus area.



**34** states  
**24** countries



**70%** For-profit  
**30%** Nonprofit



**55%** National focus  
**45%** Local focus



**46%** Prevention  
**26%** Recovery  
**27%** Recycling

See all the ReFED Food Waste Innovators at  
**[REFED.COM/INNOVATORS](https://REFED.COM/INNOVATORS)**



# TOP 5 INNOVATOR AREAS

The Food Waste Innovator Database tracks businesses and organizations working in more than a dozen categories.

Donation  
Transportation

Food Product  
Creation

Donation  
Coordination

Secondary  
Marketplaces

Composting



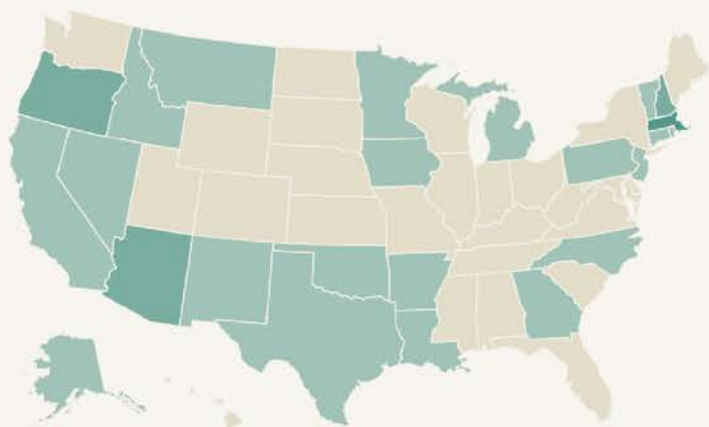
See all the ReFED Food Waste Innovators at  
**[REFED.COM/INNOVATORS](https://www.refed.com/innovators)**







# DONATION LIABILITY PROTECTION



**Problem:** Federal policy provides a baseline of food donation liability protection, but protections may not apply when nonprofit food recovery organizations charge the final recipient; when food is donated directly to the final recipient; when unnecessary labeling requirements are not met; or when food is past-date but still safe to eat.



## *Policy Solution*

Several states provide additional liability protection above those offered by the federal government.

**IMPACT:**



## **MORE BUSINESSES DONATING FOOD**

Stronger state liability protections will encourage more businesses to integrate food donation into their systems.

Research policies affecting your state

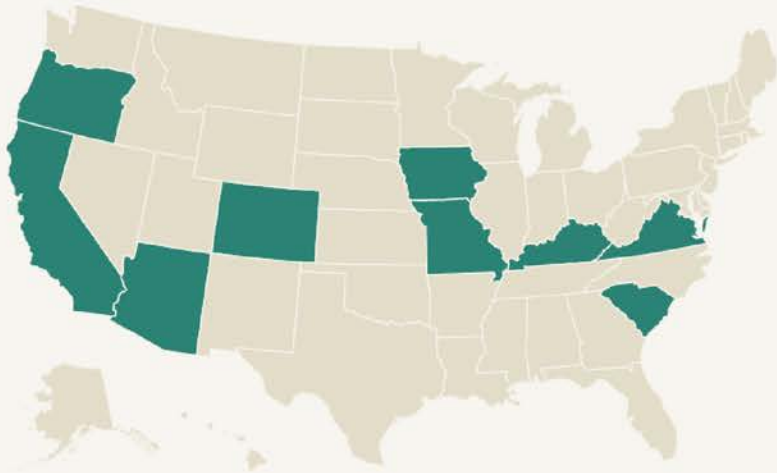
**ReFED.COM/POLICY**



**ReFED**



# TAX INCENTIVES FOR FOOD DONATION



**Problem:** While federal tax incentives for food donations exist, certain food producers, like farmers and small businesses, do not sufficiently benefit.



## *Policy Solution*

A state-level tax credit can incentivize farmers and other small businesses engaged in farming to donate crops that would go to waste to food recovery organizations.

**IMPACT:**



**\$470M**

in economic value



**638M**

Meals recovered

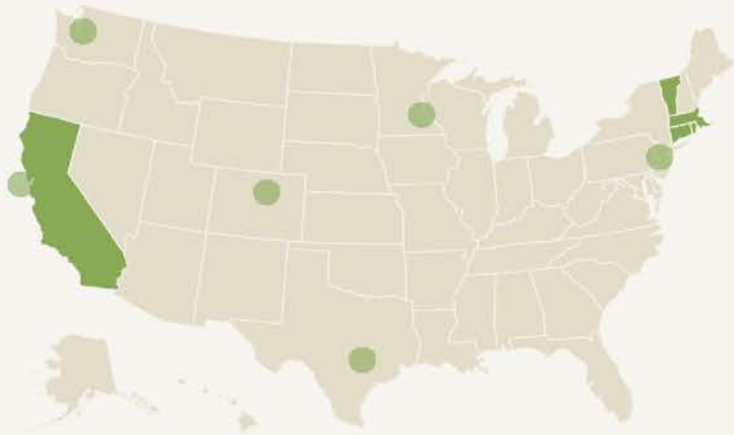
Research policies affecting your state

**ReFED.COM/POLICY**



**ReFED**

# ORGANIC WASTE BANS & RECYCLING LAWS



**Problem:** Laws intended to prevent food from ending up in landfills are proving effective, but only a few states and municipalities have enacted them.



## *Policy Solution*

Five states — California, Connecticut, Massachusetts, Rhode Island, and Vermont — and several localities have passed either waste bans or waste recycling laws for food waste, which prohibit certain entities from sending food waste to landfills.

## IMPACT:



## ROBUST MARKETPLACE FOR FOOD WASTE SOLUTIONS

Strong policy will encourage new recovery and prevention solutions while helping recycling facilities better plan for incoming waste.

Research policies affecting your state

**ReFED.COM/POLICY**



**ReFED**

# Connect with ReFED

---

**Chris Hunt**

Senior Advisor, ReFED

[chris.hunt@refed.com](mailto:chris.hunt@refed.com)

Twitter: [@refed\\_nowaste](https://twitter.com/refed_nowaste)

Facebook: [facebook.com/rethinkfoodwaste](https://facebook.com/rethinkfoodwaste)

Food Waste Policy Finder: [refed.com/policy](https://refed.com/policy)

Innovator Database: [refed.com/innovators](https://refed.com/innovators)

**Visit ReFED.com**