ReFED

Following the Roadmap to 2030

Taking Action to Reduce U.S. Food Waste by 50%

In partnership with foodtank

#HalveFoodWasteBy2030
Angel Veza
Senior Manager
Capital, Innovation & Engagement
ReFED
Following the Roadmap to 2030 Discussion Series
Enhance Product Distribution
JUNE 30 | 1:00 P.M. ET
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
You're invited to join the ReFED Food Waste Action Network.
Join a growing list of industry leaders from organizations like:

- POSNER FOUNDATION of Pittsburgh
- ZERO HUNGER ZERO WASTE FOUNDATION
- FOOD LAW and POLICY CLINIC HARVARD LAW SCHOOL
- Blue Apron
- USDA
- DOORDASH
- Spoiler Alert
- THE OHIO STATE UNIVERSITY
- Leanpath

bit.ly/JoinReFEDFWAN
Member Benefits:
- Networking
- Office Hours
- Lunch 'n Learns
- Innovation Dem Days
- Blogs & Case Studies

Join a growing list of industry leaders who are part of organizations like:

>POLL QUESTION

JoinReFEDFWAN
ReFED Insights Engine and Roadmap to 2030: Reducing US Food Waste
ReFED Insights Engine: 
Your Source for Food Waste Data and Solutions

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
- Explore Solutions
- Find Solution Providers
- Impact Calculator
Roadmap to 2030: 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.

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.

### Key Action Areas

**Prevention**
- Optimize The Harvest
- Enhance Product Distribution
- Refine Product Management
- Maximize Product Utilization

**Rescue**
- Reshape Consumer Environments
- Strengthen Food Rescue

**Recycling**
- Recycle Anything Remaining
### Roadmap to 2030: Reducing U.S. Food Waste by 50%

**Action Areas**

<table>
<thead>
<tr>
<th><strong>Optimize the Harvest</strong></th>
<th><strong>Enhance Product Distribution</strong></th>
<th><strong>Refine Product Management</strong></th>
<th><strong>Maximize Product Utilization</strong></th>
<th><strong>Reshape Consumer Environments</strong></th>
<th><strong>Strengthen Food Rescue</strong></th>
<th><strong>Recycle Anything Remaining</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer Spec. Expansion</td>
<td>Decreased Transit Time</td>
<td>Assisted Distressed Sales</td>
<td>Active &amp; Intelligent Packaging</td>
<td>Meal Kits</td>
<td>Donation Coordination &amp; Matching</td>
<td>Centralized Anaerobic Digestion</td>
</tr>
<tr>
<td>Cleaning</td>
<td>First Expired First Out</td>
<td>Decreased Minimum Order Quantity</td>
<td>Manufacturing (Product Utilization) (Upcycling)</td>
<td>Buffet Signage</td>
<td>Donation Education</td>
<td>Community Composting</td>
</tr>
<tr>
<td>Imperfect &amp; Surplus Produce Channels</td>
<td>Intelligent Banking</td>
<td>Dynamic Pricing</td>
<td>Manufacturing Line Optimization</td>
<td>Consumer Education Campaigns</td>
<td>Donation Storage Handling &amp; Capacity</td>
<td>Centralized Composting</td>
</tr>
<tr>
<td>Partial Order Acceptance</td>
<td>Temperature Monitoring (Pallet Transport)</td>
<td>Enhanced Demand Planning</td>
<td>Edible Coatings</td>
<td>K-12 Lunch Improvements</td>
<td>Donation Transportation</td>
<td>Co-Digestion at Wastewater Treatment Plants</td>
</tr>
<tr>
<td>Field Cooling Units</td>
<td>Reduced Warehouse Handling</td>
<td>Increased Delivery Frequency</td>
<td>Improved Recipe Planning</td>
<td>In-House Repurposing</td>
<td>Donation Value-Added Processing</td>
<td>Home Composting</td>
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<tr>
<td>In-Field Sanitation Monitoring</td>
<td>Advanced Update Notifications</td>
<td>MarkDown Alert Applications</td>
<td>Precision Food Safety</td>
<td>Small Plates</td>
<td>Black Coffee to Enable Donations</td>
<td>Livestock Feed</td>
</tr>
<tr>
<td>Labor Matching</td>
<td>Inventory Traceability</td>
<td>Temperature Monitoring (Foodservice)</td>
<td>Waste Tracking (Foodservice)</td>
<td>Employee Meals</td>
<td>High-Frequency Reliable Pipelines</td>
<td>Waste Derived Agricultural Impacts</td>
</tr>
<tr>
<td>Smaller Harvest Lots</td>
<td>Modified Atmosphere Packaging System</td>
<td>Low Waste Event Contracts</td>
<td>Larger Quantities for Take Home</td>
<td>Standardized Date Labels</td>
<td>Established Relationships with Businesses</td>
<td>Waste Derived Agricultural Impacts</td>
</tr>
<tr>
<td>Improved Communication for Planning Schedules</td>
<td>Vibration &amp; Drops Tracking</td>
<td>Direct to Consumer Channels</td>
<td>Smart Home Devices</td>
<td>Home Shelf-Life Extension Technologies</td>
<td>Träff's</td>
<td>Waste Derived Bioplastics</td>
</tr>
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<td>Sanitation Practices &amp; Monitoring</td>
<td>Optimized Truck Parking, Loading &amp; Unloading (e.g., Cross-Docking)</td>
<td>Home Marketplace Platform</td>
<td>Online, Advanced Grocery Sales</td>
<td>Frozen Value-Added Processing of Fresh Produce</td>
<td>WasteCorsokes Promotions</td>
<td>Waste Derived Biomaterials</td>
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<tr>
<td>Optimized Harvesting Schedules</td>
<td>Enforcing Cold Chain SOPs</td>
<td>Online Marketplace Platform</td>
<td>Precision Event Attendance</td>
<td>Repackaging Partially Damaged Products</td>
<td>Refillable Options</td>
<td>Separation &amp; Measurement</td>
</tr>
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<td>On-Farm / Near-Farm Processing</td>
<td>Regular Maintenance on Refrigerated Trucks</td>
<td>Retail Automated Order Fulfillment</td>
<td>Packaging Innovation</td>
<td>Recycling</td>
<td>Relationships with Waste Haulers</td>
<td></td>
</tr>
<tr>
<td>Local Food Systems</td>
<td>Cross-Docking</td>
<td>SKU Rationalization</td>
<td>Start Now</td>
<td>To-Go Offerings</td>
<td>Food Safety</td>
<td>Waste Audits by Waste Haulers</td>
</tr>
<tr>
<td>Clear Product Ownership</td>
<td></td>
<td>MarkDowns</td>
<td></td>
<td>Free Items Offered Upon Request (e.g., bread, chips)</td>
<td>Storytelling (e.g., product impact, sources, upcycled ingredient components)</td>
<td></td>
</tr>
</tbody>
</table>

**Modality Solutions**

- [ ] Measured Solutions
- [ ] Unmodeled Solutions
- [ ] Best Practices
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 CO2e)
4B MEALS FOR PEOPLE IN NEED
51K JOBS CREATED THROUGH SOLUTION IMPLEMENTATION OVER 10 YEARS

ReFED
“Enhancing product distribution” means maximizing freshness and selling time by harnessing the power of technology to create smart systems to efficiently move products.
ACTION AREA #2
Enhance Product Distribution

- **Residential**: 30M Tons - 37.2%
- **Farm (Produce Only)**: 16.7M Tons - 20.8%
- **Foodservice**: 12.7M Tons - 15.8%
- **Manufacturing**: 10.6M Tons - 13.1%
- **Retail**: 10.5M Tons - 13%

Source: ReFED Insights Engine
ACTION AREA #2

Enhance Product Distribution

KEY INDICATORS (ANNUAL)

- 3.3M FOOD WASTE TONS DIVERTED
- $2.2B INVESTMENT NEEDED
- 528.1B GALLONS WATER SAVED
- $8.4B NET FINANCIAL BENEFIT
- 7.1M MT CO2E REDUCTION

Source: ReFED Insights Engine
# ACTION AREA #2

**Enhance Product Distribution**

## Top Solutions

<table>
<thead>
<tr>
<th>Solution</th>
<th>Net Financial Benefit</th>
<th>Food Waste Tons Diverted</th>
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<tr>
<td>1/ Intelligent Routing</td>
<td>$2.69B</td>
<td>1.06M</td>
</tr>
<tr>
<td>2/ Decreased Transit Time</td>
<td>$2.53B</td>
<td>1.01M</td>
</tr>
<tr>
<td>3/ First-Expired/First-Out</td>
<td>$1.62B</td>
<td>618K</td>
</tr>
<tr>
<td>4/ Temperature Monitoring (Pallet Transport)</td>
<td>$1.46B</td>
<td>551K</td>
</tr>
<tr>
<td>5/ Reduced Warehouse Handling</td>
<td>$63.4M</td>
<td>22.3K</td>
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**Hyperspectral Imaging / Advanced Shipment Notifications / Inventory Traceability**
**ACTION AREA #2**

**Enhance Product Distribution**

**Top Solutions**

1. **Intelligent Routing**
   - Net Financial Benefit: $2.69B
   - Food Waste Tons Diverted: 1.06M

2. **Decreased Transit Time**
   - Net Financial Benefit: $2.53B
   - Food Waste Tons Diverted: 1.01M

3. **First-Expired/First-Out**
   - Net Financial Benefit: $1.62B
   - Food Waste Tons Diverted: 618K

4. **Temperature Monitoring**
   - Net Financial Benefit: $1.46B
   - Food Waste Tons Diverted: 551K

5. **Reduced Warehouse Handling**
   - Net Financial Benefit: $63.4M
   - Food Waste Tons Diverted: 22.3K

**Hyperspectral Imaging / Advanced Shipment Notifications / Inventory Traceability**
Blythe Chorn
Manager, Sustainability
DELOITTE CONSULTING
Eric Weaver
Chief Executive Officer
TRANSPARENT PATH
Abhinav Bahl
Social Impact & Community Relations
UBER
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