

Following the Roadmap to Cut Food Waste





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# Acknowledgements

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### Who We Are

### **Our Mission**

We are a U.S. based 501(c)(3) national nonprofit dedicated to ending food loss and waste across the food system by advancing data-driven solutions to the problem. We do it by:

- Leveraging data and insights to highlight supply chain inefficiencies and uncover economic opportunities
- Mobilizing and connecting critical food system players to take targeted action
- Catalyzing capital to spur innovation and scale high-impact initiatives

### **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.

# Why We Do It

In the U.S., 35% of all food goes unsold or uneaten. That's almost 90 billion meals' worth of food, roughly 2% of U.S. GDP. It's a major driver of climate change and has been recognized around the world as an urgent issue requiring immediate action.





# A Letter from Our Board Chair & Executive Director

Dear Friends: 2021 was a big year for food waste – and for ReFED.

The United Nations Intergovernmental Panel on Climate Change stated that it is "unequivocal that human influence has warmed the atmosphere, ocean and land," providing a stark reminder of the necessity of taking action – *right now* – to fight global warming. The good news is that more and more people are realizing that fighting food waste is a way to do just that.

Food that is unsold or uneaten is the number one product entering landfills, where it has the highest generation potential for methane, an anthropogenic greenhouse gas that's 80 times more potent than carbon dioxide. But methane has a relatively short residence time in the atmosphere – which means that targeting it now by reducing the amount of food going to waste can reduce greenhouse gas emissions in just a decade or two.

Recognizing this impact potential, funders began to step up in greater numbers. 2021 was a record year for private capital investment in food waste solutions — more than \$4.8 billion was invested in the space according to a ReFED analysis. We were excited to see advanced technologies like hyperspectral imaging and remote temperature monitoring being used to better manage production and distribution challenges; new apps to help consumers save money by buying foods that are at risk of going to waste; and the continued growth in the number of companies producing new food products through upcycling. These all have the potential to cut the amount of food going to landfill — as well as provide a return for investors.

More and more businesses recognized the importance of fighting food waste and saw its impact on customer goodwill and their bottom lines. By publicly committing to national and international reduction goals and joining with their industry peers in collaborations like the Pacific Coast Food Waste Commitment to share data, best practices, and insights, companies across all sectors are taking action for measurable impact.

Policymakers also began to see food waste as a "low-hanging fruit" to impact climate change and more. Policy is unique in its power to provide a spark that can move the food system to action, and 2021 saw a range of policies introduced — more than 115! — to help support efforts across the food system to cut the amount of food lost or wasted each year. Many of these were enacted, especially at the state and local levels, where the most forward movement is occurring.

ReFED made major strides forward in 2021 as well. We began the year with the release of our new Insights Engine, a first-of-its-kind online knowledge hub built from 50 public and proprietary datasets and offering extensive analyses and the most up-to-date information to inform the work of stakeholders of all types. Accompanying the Insights Engine was an updated version of our landmark 2016 Roadmap called the Roadmap to 2030: Reducing U.S. Food Waste by 50%, which details seven key action areas to help guide the food system in its waste reduction efforts. It was heartening to see the positive response to both of these resources – in boardrooms, in the media, even in casual conversations — and we're looking forward to enhancing the Insights Engine even more.

ReFED also expanded its outreach this year, from hosting a series of webinars digging deep into the data and solutions of the Insights Engine to launching two new member networks — the Food Waste Funder Circle (with Upcycled Food Association) and the ReFED Food Waste Action Network — and increasing the services we offer to solution providers to advance and scale their work. We served as the strategic advisor to The Wonderful Company for their inaugural Innovation Challenge to find innovative solutions to repurpose 50,000 pounds of pomegranate husks left after juicing. And we also kicked off an exciting new partnership with the Environmental Defense Fund to add a food waste component to their Climate Corps program, which trains graduate students and pairs them with companies and public institutions working to meet their climate and energy goals.

These are just a few of the accomplishments from our growing ReFED team over the past year, and we've got a lot more in store for 2022. That's why we're so thankful for all of you that are standing alongside us, either directly supporting our work or spearheading your own initiatives to cut food waste. We like to say that food waste is a systemwide problem, which means that it requires a systemwide effort to reduce it. And we're so happy to see the effort being put into this fight.

Warmly,

Dana Gunders

Executive Director

Nicola Dixon *Board Chair* 

and Diesca Dixa



# 2021 Highlights

Recognized throughout the industry as a leading voice for change, ReFED leverages our unique position at the center of the food system – and our role as an independent 501(c)(3) national nonprofit – to collaborate with key stakeholders and generate large-scale, meaningful impact. Here's a look at some of what we accomplished in 2021:



### Launched the ReFED Insights Engine and Roadmap to 2030

Since its inception, ReFED has distinguished itself by providing first-of-their-kind information resources that ensure others can develop and implement data-driven strategies to fight food waste.

This past February, we released an interactive data and solutions hub called the Insights Engine and an updated version of our 2016 Roadmap called the Roadmap to 2030: Reducing U.S. Food Waste by 50%.

Following launch, the Insights Engine has been utilized by over 22,000 users and has received 450+ use case reports and testimonials from a variety of food system stakeholders.



22,000 Users



450+ Use Cases

### **Promoted Thought** Leadership and Built **Business Engagement**

#### **POLICY**



## Top Three Ideas

- ReFED's proposal to mandate incremental food waste reduction within federal agencies was voted as one of The CLEEN Project's top three ideas to decarbonize the food system and improve public health.
- ReFED co-authored the U.S. Food Loss & Waste Policy Action Plan, which had 50+ signatories and featured five key strategies to use policy to reduce food waste - several of which were incorporated into proposed federal legislation, including the Zero Food Waste Act, the Food Donation Improvement Act, and the Food Date Labeling

#### **PRESS**



25% Growth

in media mentions from 2020, in publications such as the Washington Post, Boston Globe, Fast Company, Los Angeles Times, and Forbes.



### We advised 10 national organizations to engage in food waste prevention.

ReFED provided tailored recommendations that would elevate food waste prevention activities in certifications and standards to 10 national organizations—for instance, we advised the Association for the Advancement of Sustainability in Higher Education (AASHE) on its Sustainability Tracking, Assessment & Rating System (STARS), which is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. We also worked with the Council for Responsible Sport, the world's leading responsible sport certification program, on its Responsible Sport Standard for Organizations.



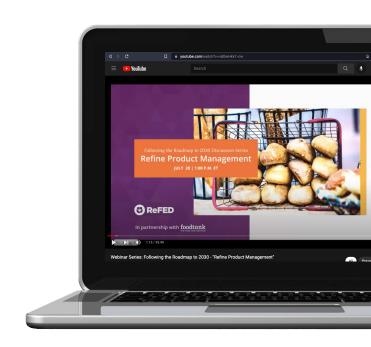
ReFED is a resource partner for the Pacific Coast Food Waste Commitment (PCFWC), a public-private partnership working to create a less wasteful food system in the West Coast region. In 2021, the initiative was expanded to include manufacturers such as Food Northwest and Bob's Red Mill. And the year ended with Wal mart committing to share their food waste data.



In 2021, ReFED partnered with the Environmental Defense Fund, one of the world's leading environmental organizations, to develop the Climate Corps® Food Waste Fellowship for launch in 2022. It is a first-of-its-kind collaboration designed to advance companies' strategic food waste initiatives and train the next generation of food waste and climate leaders. This fellowship has attracted major brands and companies from across the supply chain, including manufacturers, distributors, grocery retailers, and foodservice companies, and early applications indicated a demonstrated interest from high-caliber graduate students to work directly at the nexus of food waste and business as a way to achieve climate goals.

### **Activated Stakeholders Through New Networks and Expanded Programming**

Building on ReFED's history of convening leaders in the food waste sector through our Expert Network and Further with Food initiatives, in 2021, we launched the ReFED Food Waste Action Network (FWAN) - a space designed to inspire collaboration between individuals and organizations from across the food system and from a diverse set of backgrounds. The ReFED FWAN offers opportunities to connect with, teach, and learn from other members, as well as gain access to the most upto-date information, insights, and best practices on food waste.





ReFED Food Waste Action Network (FWAN) members committed to fighting food waste and collaborating on solutions.

3,201

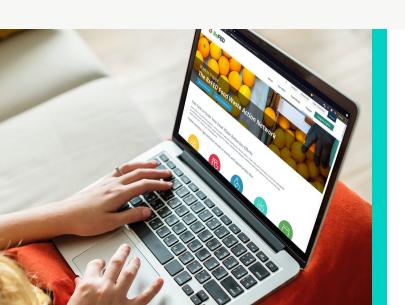
Attendees at ReFED webinar events, contributing to building awareness and motivating action



98% indicated an increase in awareness from attending a ReFED webinar. indicated an increase in awareness or skills



 $70\% \qquad \begin{array}{ll} \text{reported an intention to act on the knowledge} \\ \text{gained following one of our webinars.} \end{array}$ 



7,500

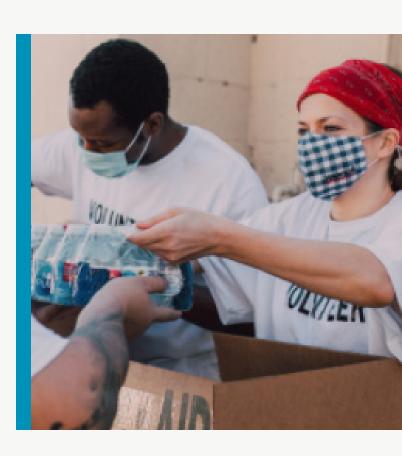
Attendees reached at 64 external speaking engagements throughout the year.

# Catalyzed Capital to Advance Solution Adoption



ReFED and Upcycled Food Association launched the first-ever Food Waste Funder Circle.

The Funder Circle is a dedicated network to support private, public, and philanthropic funders who want to use their capital to scale a full range of solutions to food waste, with members including Closed Loop Partners, Posner Foundation, The Kroger Co. Zero Hunger | Zero Waste Foundation, Village Capital, and Cultivian Sandbox. In the first month, ReFED has shared funding opportunities for nearly 100 solution providers with the Funder Circle.



# Supporting the Growth of Solution Providers



\$80M

has been catalyzed through the original seven cohort members

ReFED serves as a long-standing partner of The Kroger Co. Zero Hunger | Zero Waste Foundation, acting as Strategic Advisor to the creation of their \$10M Innovation Fund and leading their inaugural Open Call in 2019. This year, ReFED served on the Advisory Committee for the Foundation's 2021 Open Call, which was run with Village Capital – a partnership ReFED helped to initiate. From the \$1M granted from the inaugural open call, the original seven cohort members have catalyzed more than \$80M in follow-on funding to help unlock critical food access in communities across the country. For this year's Open Call, Matriark Foods – a ReFED COVID-19 Food Waste Solutions Fund grant recipient in 2020 – was announced as one of the winners, receiving an additional \$250k beyond their portion of the \$2.5M granted to this year's ten cohort organizations.



Currently listed in the ReFED Solution Provider Directory.

- 42% Prevention Solutions
- 36% Rescue Solutions
- 26% Recycling Solutions
- 61% for profit
- 38% nonprofit

ReFED supports food waste solution providers by creating resources, catalyzing funding, and facilitating consultations that leverage our expertise and grow their impact.

# ReFED's Insights Engine: Driving Purposeful Action to Fight Food Waste

Since the launch of the ReFED Insights Engine and *Roadmap to 2030* in February, food businesses, solution providers, government entities, consultancies, academics, and more have testified to the power of these and other ReFED tools and resources in expanding their knowledge and informing their food waste reduction efforts. Here are potent examples of the over 400 use cases and testimonials we documented in 2021.

# Google

Google used the Insights Engine to inform ambitious goals around food waste reduction and diversion in their own foodservice operations. First, they used the Solutions Database to identify about 20 solutions to consider and conducted an analysis using ReFED's data to model estimated impacts on waste generation and diversion from landfill. They also used ReFED's Impact Calculator to estimate the climate and water impacts of their selected solutions. The results were a jumping off point for them to create an implementation plan around the solutions that were most feasible in the short term, and develop a longer-term innovation strategy to unlock solutions that would require collaboration outside of Google. In the end, this analysis gave them the confidence to announce a public commitment to cut food waste in half per Googler and send zero waste to landfill, all by 2025.







The Australian Food and Agribusiness Growth Centre (FIAL), an entity established by the Australian government, utilized data from the ReFED Insights Engine for their *National Food Waste Strategy Feasibility Study*, which analyzed the feasibility of Australia cutting food waste in half by 2030. They found that industry-led initiatives are the most cost-effective approach to food waste reduction, once a supportive policy framework is in place.

Key areas of the feasibility study made use of the Insights Engine, ReFED's original *Roadmap*, and an expert interview with Executive Director Dana Gunders. These sections of the study include the rationale behind improved date labeling and consumer education campaigns as key food waste interventions, as well as the overall cost assumptions of implementing various solutions.

According to FIAL, "The findings from the *Feasibility Study* will inform decisions by government policymakers and agri-food businesses alike, including those relating to the likely levels of investment required to deliver the Strategy between 2020 and 2030."



Food waste solution providers such as Matriark Food—which upcycles farm surplus and fresh-cut remnants into healthy, delicious, low-sodium vegetable products—have made use of Insights Engine tools to quantify the impacts of their work and support their partnerships.

"ReFED's work has been a total game-changer for Matriark. We use the Insights Engine to track our impact—GHGs and water saved. And as we're bringing on customers who are starting to track their Scope 3 emissions, verification is critical. The ReFED COVID-19 Food Waste Solutions Fund grant we received last summer helped us prove out the need (and viability) for nimble processing. And the momentum overall that ReFED has generated around the need to reduce waste and to inspire innovation on this critical environmental issue has made our fundraising easier (we just closed our first equity round). Not to mention building a community of action. "

Anna Hammond CEO and Founder, Matriark Foods.







Policy is a key lever in the fight against food waste, and government agencies have used the Insights Engine to inform their statewide food waste reduction plans. The State of Washington's Department of Ecology used the Insights Engine and *Roadmap to 2030* to provide the economic rationale and analysis behind its statewide *Use Food Well Washington Plan*. The plan includes 30 recommendations for food waste solutions adoption and the corresponding economic implications. Using Insights Engine data, Washington was able to estimate that the 30 recommendations would garner net benefits of more than \$1 billion annually, from elements such as reduced disposal costs, development of new markets and waste uses, and avoided purchases of additional food.

Additionally, the *Roadmap to 2030* was used to provide the rationale behind the *Use Food Well Washington Plan's* recommendations for Washington to support the national date labeling standard, improve donation transportation, increase state grant funding for food waste reduction, and to support Washington-specific waste tracking and analytics. The Washington Department of Ecology also reported that over time their solution recommendations could divert more than one million tons of food waste across the state each year, a significant portion of which would be edible food diverted to hunger relief or new markets.

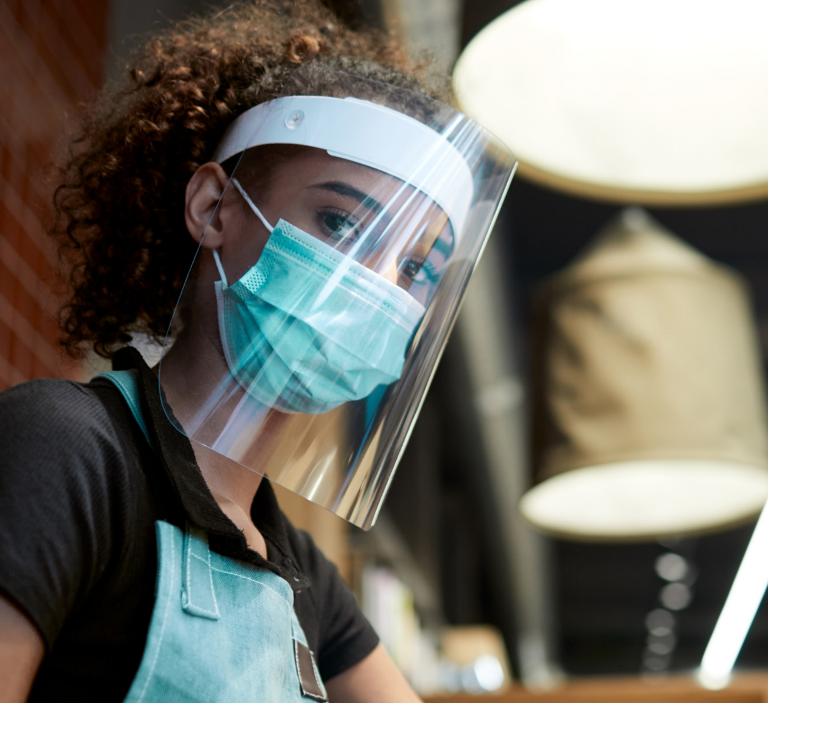
# Why Investing in Food Waste is Imperative

The movement for food waste reduction is at a tipping point. With its central role in the U.S. food system, ReFED is uniquely positioned to support the work of businesses, non-profits, government entities, and others that are implementing solutions to reduce food waste. We know that changing an entire system requires a movement leader, offering trusted and reliable information and guiding intentional partnerships. ReFED is that leader—but none of our important work is possible without significant philanthropic support.

Here's why our funders are helping us meet our vision: A sustainable, resilient, and inclusive food system.







# Resilience

"The Walmart Foundation supported the ReFED Insights Engine because data is important to making food waste reduction actionable, and reducing food waste is crucial to the health and well-being of our communities."





# Looking Ahead to 2022



# The Premier Food Waste Event of the Year, Presented by ReFED

Join us in Minneapolis in May for three days of insights, innovation, and action at the 2022 Food Waste Solutions Summit. The Food Waste Solutions Summit is the premier food waste event of the year, bringing together food businesses, funders, solution providers, innovators, policymakers, nonprofits, and more to drive the adoption of solutions to reach our collective goal of a 50% reduction in food waste by 2030.

We're using the key action areas and solutions from ReFED's *Roadmap to 2030* to create a selection of mainstage presentations and panels, breakout sessions, networking events, field trips, special activities, and more.

**REGISTER NOW!** 











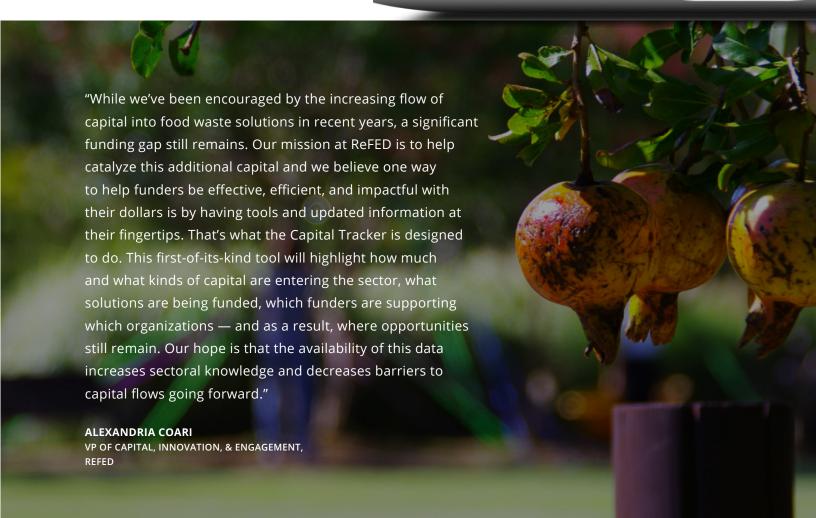
### Launching in 2022

# Introducing ReFED's Food Waste Capital Tracker

The Food Waste Capital Tracker is a new Insights Engine tool that provides data on investments in food waste solutions, allowing both funders and investment recipients to understand the landscape, identify key players, and plan out their funding strategies. This is the first time that this type of data has been aggregated, analyzed, and presented in a flexible format offering a range of user-selected views. It will be a major advance for the field and will facilitate additional investment in the space.

LEARN MORE ABOUT THE INSIGHTS ENGINE ▶





## Our Organization

In 2021, ReFED grew our capacity to scale our impact. We now have 12 full-time employees and four ReFED Fellows (focusing on policy, climate, development and communications, and diversity, equity, inclusion, and justice). ReFED also welcomed three new Board members: Pamela Murphy, Shashank Mohan, and Eric Woods. Our new team members have already helped launch new programs and build our collective knowledge. They bring a multitude of new and diverse skills to the ReFED team and Board that we are excited to put into action toward building a sustainable, resilient, and inclusive food system.

### **OUR STAFF**



Dana Gunders Executive Director



Selena Mao Data & Insights Research Analyst



Alexandria Coari VP of Capital, Innovation, & Engagement



Jackie Suggitt
Capital, Innovation,
& Engagement
Director



Caroline Vance Capital, Innovation, & Engagement Director



Angel Veza
Capital, Innovation,
& Engagement,
Senior Manager



Alejandro Enamorado Capital, Innovation, & Engagement Manager



Lily Herd Capital, Innovation, & Engagement Manager



Sarah Munger Capital, Innovation, & Engagement Analyst



Nyree Hall Diversity, Equity, Inclusion, and Justice Fellow



Jeff Costantino Communications Director



Vanessa Mukhebi Communications Manager



Paige Downey Communications & Development Fellow



Shawn Shepherd
Development
Director



Katy Hart Operations Director



Minerva Ringland Climate Fellow



Samantha Goerger Policy Fellow

#### **OUR BOARD**

Our Board is comprised of leaders in the business, technology, philanthropic, and nonprofit sectors who inform the organization's strategic initiatives, offer technical expertise, and collectively provide a holistic analysis of the challenges and opportunities for food waste reduction.

Nicola Dixon

Chair, ReFED Board of Directors Director of Global Impact,

General Mills

Eduardo Romero

Secretary, ReFED Board of Directors President and CEO, Hana Group

Steven Swartz

Treasurer, ReFED Board of Directors Executive Vice President, Chief Strategy Officer, Chief Technology Officer, The Wonderful Company

Jesse Fink

Non-Executive Chairman and Co-Founder,

MissionPoint Partners

Trustee, Fink Family Foundation

Stacey Greene-Koehnke Chief Operations Officer, Atlanta Community Food Bank Emily Ma

Head, Food for Good, Google

Shashank Mohan

Managing Director, BlackRock

Pamela Murphy

Philanthropist and Nonprofit

Board Leader

Chuck C. Savitt

Director of Strategic Client Relationships,

Sher Edling LLP Trustee and Treasurer, The Windward Fund

Yalmaz Siddiqui

Vice President Corporate Sustainability,

MGM Resorts International

Eric Woods

Corporate Officer, VP Field Operations, Sysco

### **OUR 2021 ADVISORY COUNCIL**

Thank you to ReFED's 2021 Advisory Council, for their support, guidance, and expert input to ReFED's priority programs and long-term strategy.

John Dannan

Principal, Organic Waste, Generate Capital

Chief Operating Officer, 84.51°

Managing Director, Rabobank

Dr. Jonathan Foley

Executive Director, Project Drawdown

Susan Robinson

Senior Director of Sustainability,

Waste Management

Elise Golan

Director for Sustainable Development, U.S. Department of Agriculture

Ami McReynolds

Chief Equity and Programs Officer,

Feeding America

Tejal Mody

Milen Mahadevan

Ryan Shadrick Wilson

Founder, Boardwalk Collective LLC

Dr. Liz Goodwin, OBE

Senior Fellow and Director, Food Loss and Waste,

World Resources Institute

Andrew Shakman

Chief Executive Officer and Co-Founder,

LeanPath

## Ways to Engage with ReFED

Help ReFED create a more sustainable, resilient, and inclusive food system:



#### **EXPLORE THE INSIGHTS ENGINE**

The ReFED Insights Engine is a data and solutions hub, designed to provide anyone interested in food waste reduction with the information and insights they need to take meaningful action to address the problem.

LEARN MORE ABOUT THE INSIGHTS ENGINE ▶



#### **DOWNLOAD THE ROADMAP TO 2030 REPORT**

The Roadmap to 2030 is a comprehensive blueprint that looks at the entire food supply chain and identifies seven key action areas showing where the food system must focus its efforts over the next ten years – plus it includes a detailed financial analysis to help direct the private, public, and philanthropic capital investments needed to fund these efforts.

**DOWNLOAD THE ROADMAP TO 2030 REPORT** ▶



### JOIN THE FOOD WASTE ACTION NETWORK

ReFED's Food Waste Action Network (FWAN) is a space designed to inspire collaboration between individuals and organizations from across the food system and from a diverse set of backgrounds. FWAN members get access to events and opportunities like networking events, lunch 'n' learns, innovation demo days, and more.

BECOME A FWAN MEMBER ▶



### JOIN THE FOOD WASTE FUNDER CIRCLE

Co-founded by ReFED and Upcycled Food Association, the Food Waste Funder Circle is for private, public, and philanthropic funders interested in using their capital to solve food waste challenges. Members get access to regular programming about investing in food waste innovations; deal flow reports and pitches from solution providers; opportunities to work with like-minded funders; and more.

LEARN MORE ABOUT THE FOOD WASTE FUNDER CIRCLE



### **CONNECT WITH US ABOUT FUNDING NEEDS & OPPORTUNITIES**

ReFED directly supports our network of solution providers by highlighting your funding needs to a select group of capital providers through our Food Waste Funder Circle.

SUBMIT YOUR FUNDING REQUEST **>** 



### Become a Supporter!

We are extremely grateful for the partnership and support of our growing community of donors. Reimagining a food system without waste or loss requires contributions of all types and sizes.

If you are interested in making a gift, visit our website or contact Shawn Shepherd (shawn.shepherd@refed.org).

LEARN HOW TO BECOME A FUNDER

Follow Us on Social Media





### Our Supporters

ReFED's ambitious work is made possible by the generous support of our growing donor community. This year, we welcomed 44 new donors into our family. Alongside our legacy funders, they enabled us to reimagine our food system without loss or waste.

> **AJANA FOUNDATION**

**ARJAY & FRANCES F. MILLER FOUNDATION** 

FI 17A **BROWN**  **KENNETH GOLDMAN DONOR FUND** 















**PETER** WELLES





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**DAVID CROWN** 





**ANONYMOUS** DONOR

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### Our Individual Donors

ReFED laid a strong foundation for organizational sustainability and efficiency by building the infrastructure for online individual giving this year. We want to thank all the donors who have made this endeavor a success.

ANONYMOUS DONORS (4)
DR. CHOW & MS. HINZE
HOWARD & GERALDINE POLINGER FAMILY FOUNDATION
LIFE IS A GIFT LEGACY FUND DAF
MUUN CHI, LLC
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LAURA PERDOMO-COHEN
RAJAT PAHARIA
JESSLYN HILTZ
ANITA RATNATHICAM

XINROU TAN KIM HUSKEY **GUY GANANI** PAVEL SIROTIN KAI EUBANKS CASEY MADDEN **EMILY MA** YUKI MURATA VICTORIA REHKUGLER

GEORGANN PARKER

JAN WRIGHT





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