



Sustainable Broome Lunch & Learn Panelist Series

Session #3: Managing Our Refuse: Local Solid Waste Stewardship Part 1

Hosted by: The Broome County Planning Department

February 16th, 2024



Cornell Cooperative Extension
Broome County



Sustainable Broome Lunch & Learn Panelist Series

The Sustainable Broome Lunch & Learn Panelist Series is...

- a new sustainability education initiative centered around providing workshop-like sessions on an almost bimonthly basis that to bring together community members and experts in the sustainability and resiliency spaces across the County
- sessions will have a main sustainability focus area where guest speakers will present relevant projects, programs, research, and/or opportunities
- our goal is to provide local information about what is happening right in our backyard, how to get involved in sustainability efforts throughout our communities, and what steps each municipality and community member can take to decrease their impact on our interconnected-climate systems



Sustainable Broome Lunch & Learn Panelist Series

Broome County: A Climate Smart Community & Clean Energy Community

- **Climate Smart Communities** is a New York State program that supports local governments in leading their communities to reduce greenhouse gas emissions, adapt to the effects of climate change, and thrive in a green economy
- **Clean Energy Communities** program aid local municipalities to implement clean energy actions, save energy costs, create jobs, and improve the environment



| | |
|---|----------------------------|
| 10 | |
| ACTIONS COMPLETED | POINTS EARNED |
| High Impact Actions | Count Points |
| Benchmarking | 1 100 |
| Clean Energy Upgrades | 1 500 |
| Climate Smart Communities Certification | 1 600 |
| Community Campaigns | 1 0 |
| County Hosted Training | 3 900 |
| Energy Code Enforcement Training | 1 200 |
| PACE Financing | 2 200 |
| Grand Total | 10 2,500 |



Sustainable Broome Lunch & Learn Panelist Series



Tentative Session Topics

- Southern Tier Energy Systems
- Clean Energy Economies
- Green Buildings
- Organics Management
- Flood Resiliency
- Land Conservation
- Smart Growth
- Transportation

**Are other topics
or presenters
you would like
us to include?**

Broome County Solid Waste Program

Debra Smith

Director of Solid Waste

Division of Solid Waste
Management

2024



Mission

Provide the community with an integrated program for managing solid waste in an economically sound and environmentally safe manner.



Landfill History

- In the early 70's, Broome County began to manage all waste disposal.
- Over 6 million tons of waste in place.



Recycling Program





No
Plastic Bags
Bureaucracy
Trash or Plastic Trash

RECYCLE
Metal & Plastic Containers
Glass Jars & Bottles
Milk & Juice Cartons
Mixed Paper
Newspaper, Journals
Magazines, Books, Etc.
Boxes, please flatten
No
Plastic Bags
Bureaucracy
or Plastic Trash

CAUTION

Bulky Rigid Plastics Only

- Buckets, milk/laundry crates, laundry baskets
- Plastic toys, playhouses
- Plastic lawn furniture, pet carriers
- Plastic covers, shelving, signs
- Automotive plastics (swingers, truck bed, etc.)
- Plastic garbage cans, bins, etc.

NO PVC pipe/fittings or vinyl siding
NO Plastic film, glass, paper, metal
NO Small plastic containers
NO Garbage

Rigid Plastic
Recycling
SEE SIGN FOR
DETAILS
←

CAUTION
NO OPEN
FLAMES

Rigid Plastic
Recycling
SEE SIGN FOR
DETAILS
←





Educational Outreach

BROOME COUNTY DIVISION OF SOLID WASTE MANAGEMENT
RECYCLING QUICK GUIDE

RECYCLE | EMPTY & RINSE

DO NOT RECYCLE

BOTTLES, JUGS & CONTAINERS | **GLASS** | **METAL CANS & CONTAINERS**

PLASTIC BAGS & WRAP | **STYROFOAM**

CARDBOARD & CARTONS | **PAPER & NEWSPAPER**

NO FOOD LEFT IN CONTAINERS | **TANGLERS (HOSE, WIRE, ROPE)**

WHEN IN DOUBT THROW IT OUT! | 607.778.2250 | WWW.GOBROOMECOUNTY.COM/SOLIDWASTE



RecycleRightNY

RECYCLING GUIDE

BROOME COUNTY DIVISION OF SOLID WASTE MANAGEMENT

607-778-2250

WWW.GOBROOMECOUNTY.COM/SOLIDWASTE

40 HAWLEY STREET, PO BOX 1766
 BINGHAMTON, NY 13901

facebook

BROOME COUNTY RECYCLES

Broome County Div of Solid Waste

Home | Posts | Reviews | Photos | Community | Info and Ads

Help us improve recycling in 2019, and remember to recycle your aluminum and steel cans. Steel cans and aluminum cans can be recycled right in your curbside bins. Remember to empty and lightly rinse any food residue or liquids that could spill out. This helps increase the value of all recyclable materials by keeping them clean and dry. #RecycleRightNY #RecycleCans

PUT US IN YOUR BIN

Broome County Landfill

The Broome County Landfill provides year-round service to Broome County residents for the disposal of...

Community | About

Waste Reduction & Reuse

- Durable & Reusable Items
- Avoid single use packaging
- Donate unwanted items





Product Stewardship

- Product packaging and printed paper
- Batteries
- Solar Panels
- Mattresses



Composting



Wasted Food



RecycleRightNY

WASTED FOOD

HOW YOU CAN REDUCE WASTE & SAVE MONEY



BROOME COUNTY
DIVISION OF SOLID WASTE MANAGEMENT

607-778-2250

WWW.GOBROOECOUNTY.COM/SOLIDWASTE

40 HAWLEY STREET, PO BOX 1766
BINGHAMTON, NY 13901

Residential Programs

Household Hazardous Waste

Free Compost & Pallets

Battery Recycling

Electronics Recycling

Eco Center

Eco Center





08/18/2009







Section IV Cell 1



Gas to Energy Facility

Landfill Project

Landfill
Reclamation &
Redevelopment of
Airspace



Thank you

Debra Smith

Director of Solid Waste

BC Div. of Solid Waste Management

607-778-2397

Email:

debra.smith@broomecountyny.gov

Website:

www.gobroomecounty.com/solidwaste



Session #2

Sustainable Broome Lunch & Learn Panelist Series

Break Time



University Waste Reduction & Recycling

Sustainability Manager
Martin Larocca



Executive Order 22

- **Leading By Example: Directing State Agencies to Adopt a Sustainability and Decarbonization Program**
 - Consolidated previous sustainability EOs
 - Establish GreenNY council
 - 75% reduction in waste
 - Updated Reporting



Executive Order 22

- The waste diversion plan shall incorporate at least the following elements:
 - a schedule for conducting routine waste audits of facilities and how the findings from the waste audit will be utilized in advancing waste reduction
 - a plan for diverting organic waste from landfill to meet the diversion goals
 - identifying all instances where single-use plastics are used and creating a plan to eliminate their use in all circumstances where doing so will not endanger employee or public health and safety
 - consideration of whether the affected entity should, by 2025, transition to dual-stream recycling that source separates recyclable items into subcategories of mixed paper and commingled containers (plastic, glass, and metal), at all facilities where it is practicable and where dual-stream material recovery facilities are available, cost-effective and efficient.

STARS AASHE

- The Sustainable Tracking, Assessment & Rating system a program of The Association for the Advancement of Sustainability in Higher Education
- A transparent, self-reporting framework for colleges and universities to measure their sustainability performance.
- Top performer
 - Research
 - Water Management
 - UP 11.21 rank points since 2018
 - ~18% increase





Facilities Management

- **Recycling and Resource Management**
- **Waste Reduction Services on Campus:**
 - **Recycling**
 - **Composting**
 - **Waste Management**



Recycling and Resource Management

- **Collection and Removal**
 - Recyclables
 - Compost
 - Universal Waste
 - Confidential Documents
 - Waste Contract
- **Office main support**
 - Student Assistants



Recycling and Resource Management

- Vehicle
 - 2 8yd Diamondback compactors with F550 Cab
 - 1 12yd Viper compactor with Ford cab with cable winch
 - 17' Classicube box truck with Chevrolet cab express 3500





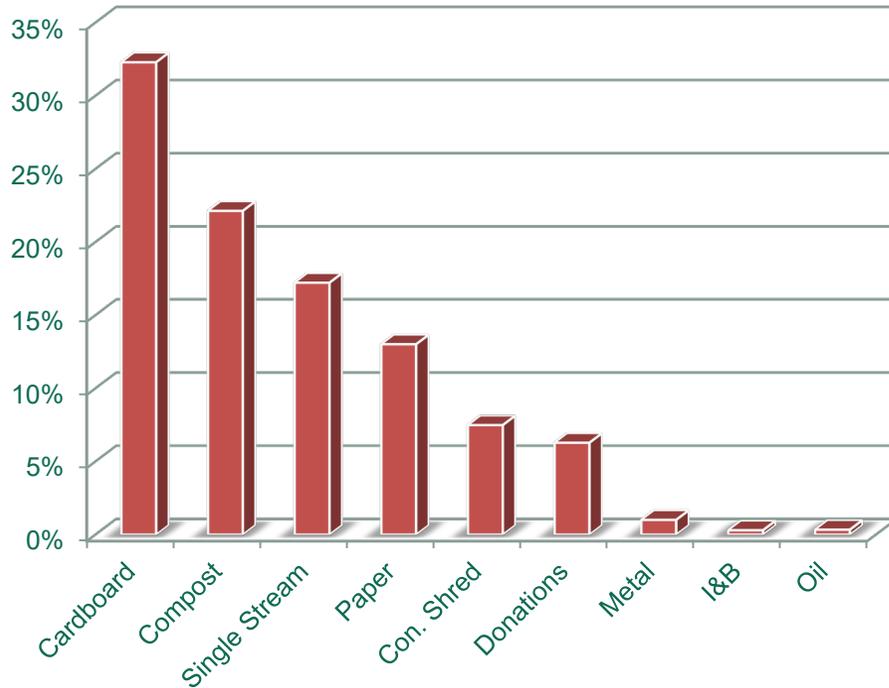
Waste Reduction Services

- **Campus Recycling includes:**
 - Cardboard
 - Mixed (glass, metal, plastic)
 - Paper (Confidential, non- confidential)
 - Ink/Toner
 - Batteries
 - Scrap Metal
 - Pallets
 - CFL Bulbs
 - Electronics
 - Paint (new pilot program)

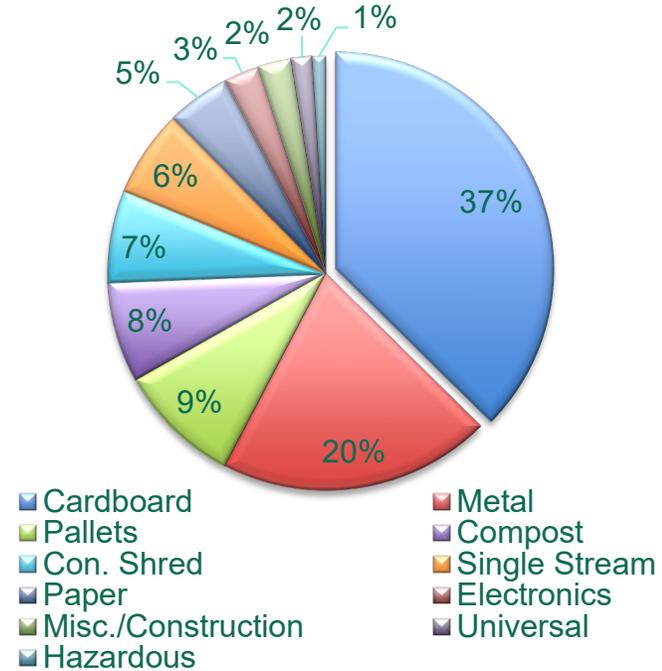


Waste Reduction Services- Breakdown

Recycling Breakdown 2010-11



Recycling Percentage Breakdown 2022-23





Waste Reduction Services- Compost

- **Contamination Reduction**
 - Only food scraps (pre/post consumer) allowed into compost barrels
 - Encourage reusable tableware
 - Change dining hall disposable tableware to compostable
 - Contract Negotiation
- **6 NYCRR Part 350 Food Donation and Food Scraps Recycling**
 - Donation
 - Recycling



Waste Reduction Services- Universal Waste

- **Material**
 - CFL Bulbs
 - Batteries
 - Toner
 - Waste Oil
- **Environmental Justice**
 - **Certification (R2/RIOS, NAID, ISO 9001)**
 - Electronics recycling
 - Recycling Industry Operating Standard
 - Quality Management Solution



Methods of Waste Reduction

- Perform audit
- Identify contamination
- Update signage
- Update containers
- Repeat



Methods of Waste Reduction

Mixed Run Checklist

| | | |
|---------------------------------|------------------------------|------------------------|
| Name: _____ | Date: _____ | Weight: _____ |
| State Buildings: | Number of Bins: M P | Dorm Buildings: |
| Academic B | | Dickinson |
| Campus heating Plant | | Rafuse |
| Central Receiving | | Digman |
| Clearview Hall | | Champlain |
| Commissary | | Whitney |
| Couper Administration | | Johnson |
| Downtown Center (DTC) | | Newing |
| East Campus Housing Trailer | | Bingham |
| East Gym | | Deleware |
| Engineering Building | | Endicott |
| Events Center | | Broome |
| Fine Arts | | C.I.W. |
| Health Services | | Seneca |
| Institute for Child Development | | Onieda |
| ITC | | Onondaga |
| Lecture Hall | | Cayuga |
| Library | | Mohawk |
| Lot M Construction Trailer | | Hinman |
| McGwire Building | | Cleveland |
| Physical facilities | | Hughes |
| Pre-School | | Lehman |
| O'Conner(State) | | Roosevelt |
| Rockefeller Center Back Dock | | Smith |
| Rockefeller Center Front Dock | | Mountainview |
| Science I | | Marcy |
| Science II | | Windham |
| Science III | | Cascade |
| Science IV | | Hunter |
| Science V | | Susquehanna |
| Union Bookstore Dock (DH) | | Brandywine |
| Union Catering Dock (DH) | | Brandwine/Choconut |
| West Gym | | Choconut |
| Dining Halls (DH): | Number of Bins: | Glenwood |
| C.I.W. | | Naticoke |
| Collegiate Center | | Hillside |
| Appalacian | | Hillside Commons |
| Hinman | | Nyack/Minnewaska |

Contaminants:
C- Cardboard S- Styrofoam

Notes:



Methods of Waste Reduction

- **Campus Inventory Check**
- **Residential**
 - Dorm damage
 - Walk through
- **State**
 - Interns
 - Walk through



Sustainability Events

- **Campus Sustainability Month**
- **Binghamton 2 Degrees Monthly Sessions**
- **America Recycles Day**
- **Race to Zero Waste**
- **Earth Month**
- **Earth Day Festival**
- **Sustainability Scavenger Hunt**
- **Campus Move-Out/Binghamton Move-Out Project**



Annual Diversion Per Capita

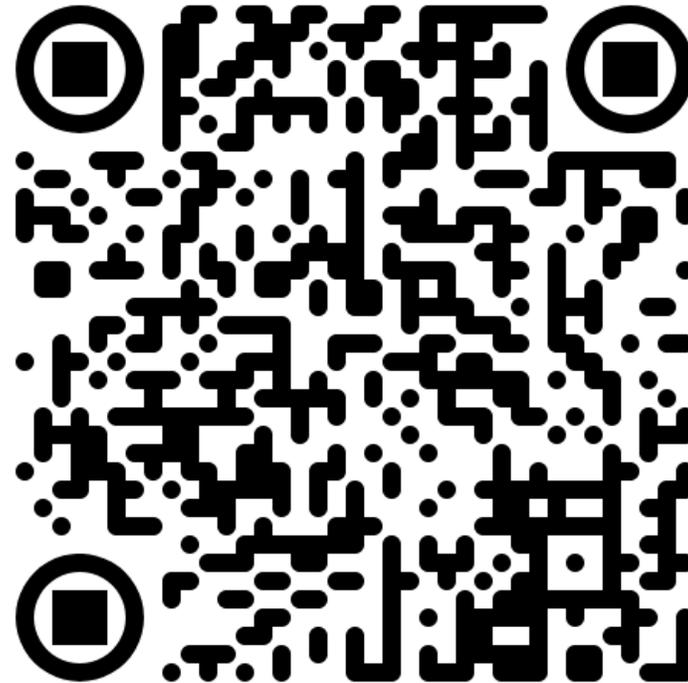


Annual Refuse Per Capita



Office of Sustainability

- <https://www.binghamton.edu/sustainability/>





Creating a Community ReUse Systems Model

SUSTAINABLE BROOME - Lunch & Learn

Diane Cohen, CEO, Finger Lakes ReUse, Inc.

February 16, 2024

Finger Lakes ReUse, Inc. - 501(c)3 nonprofit organization founded 2007



Our **mission** is to enhance **community**, **economy**, and **environment** through reuse.

Our **founding goals** are to **reduce waste**, **relieve poverty**, and **teach skills** through reuse activities.

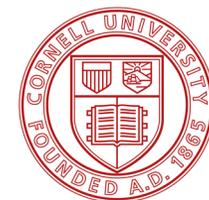
Our **vision** is of a **just**, **resilient**, and **waste-free world** that **values people** and **resources**.

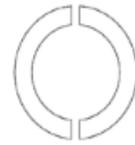


collaboration

Dr. Janine Benyus

Finger Lakes ReUse, Inc. - 501(c)3 nonprofit organization founded 2007





Circular
Construction
Lab



Circularity, Reuse, and Zero Waste Development

Finger Lakes ReUse Programs

- ★ **First Community ReUse Center** opened at Triphammer Mall (2008)
- ★ **Deconstruction & Salvage Services*** begin (2009)
- ★ **eCenter Computer Refurbishing** program (2010)
- ★ **Ithaca Fixers Collective** (repair volunteers) (2012)
- ★ **ReSET Job Training** program (2013)
- ★ **Second Ithaca ReUse Center** opened (2015)
- ★ **ReMAP (ReUse Materials Access Program)** (2017)

**Deconstruction Services largely paused (2018) due to capacity to absorb donation drop-off volumes*



Finger Lakes ReUse Awards

- US EPA - *Environmental Champion Award*
- NYSDEC - *Environmental Excellence Award*
- Tompkins County Chamber of Commerce - *Nonprofit of the Year Award*
- Alcohol & Drug Council - *Recovery Friendly Employer of the Year*
- Ithaca Journal Readers Poll - *Best Department Store (2021)*
- Town of Ithaca Environmental Conservation Award (2022)
- Ithaca Times Readers Choice - *Best Thrift Store (2018-2023)*



5 YEAR ECONOMIC IMPACTS 2018-2022

SOURCE: [Quantifying the Economic Impact of Finger Lakes ReUse in Tompkins County, New York](#), Mikec & Augustine-Marceil, February 2023



Finger Lakes ReUse has consistently grown its revenue and in 2022 earned an estimated \$2.5 million from sales. As sales revenues grow, so does Finger Lakes ReUse's contribution through county sales tax, in the last 5 years the organization has contributed \$346,000.



Since 2018, Finger Lakes ReUse has diverted an estimated 2.8 million individual items weighing approximately 9.7 million lbs. This is equivalent to 6.7% of all municipal solid waste sent to landfill by Tompkins County over the last five years.

Finger Lakes ReUse stats

- ★ \$2.5 million in sales in 2023
- ★ 45,000 drop-off donations in 2022
- ★ 750,000 items returned to local use in 2022
- ★ \$191,000 (our prices) provided in store credit vouchers to people in crisis through referrals from 26 local human service agencies in 2023
- ★ \$196,000 collected and paid in sales tax in 2022
- ★ Started with 7 employees, now 78 employees, 10 apprentices, 32 summer youth workers
- ★ Pay livable wage, health benefits, retirement
- ★ 752 volunteers = to 4.3 full time equivalent employee in 2023



WELCOME
COMMUNITY POWERED BY REUSE





















Barbra Streisand

SIMON AND GARFUNKEL'S GREATEST HITS

- Bridge Over Troubled Water
- Ms. Kelly
- The Sound Of Silence
- The Boxer
- The Only Living Boy In New York
- Homeward Bound: Through The Brick Wall
- 1975

Orpheus Descending







WORKFORCE

Green, living wage jobs, skill-building for quality careers, volunteer opportunities







REUSE

Thank You



















CAPACITY

Warehouse & retail facilities, equipment, staffing, expertise









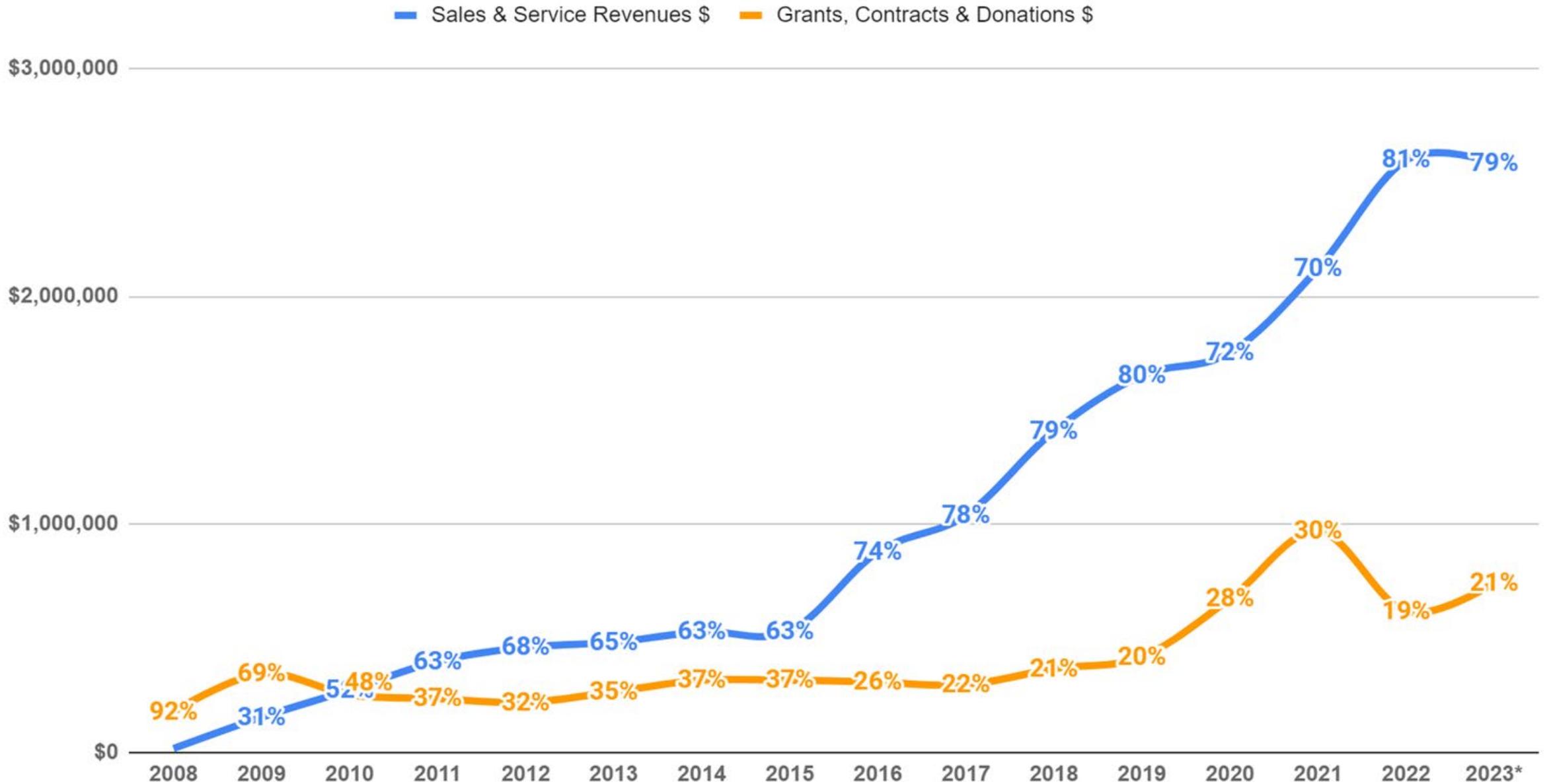




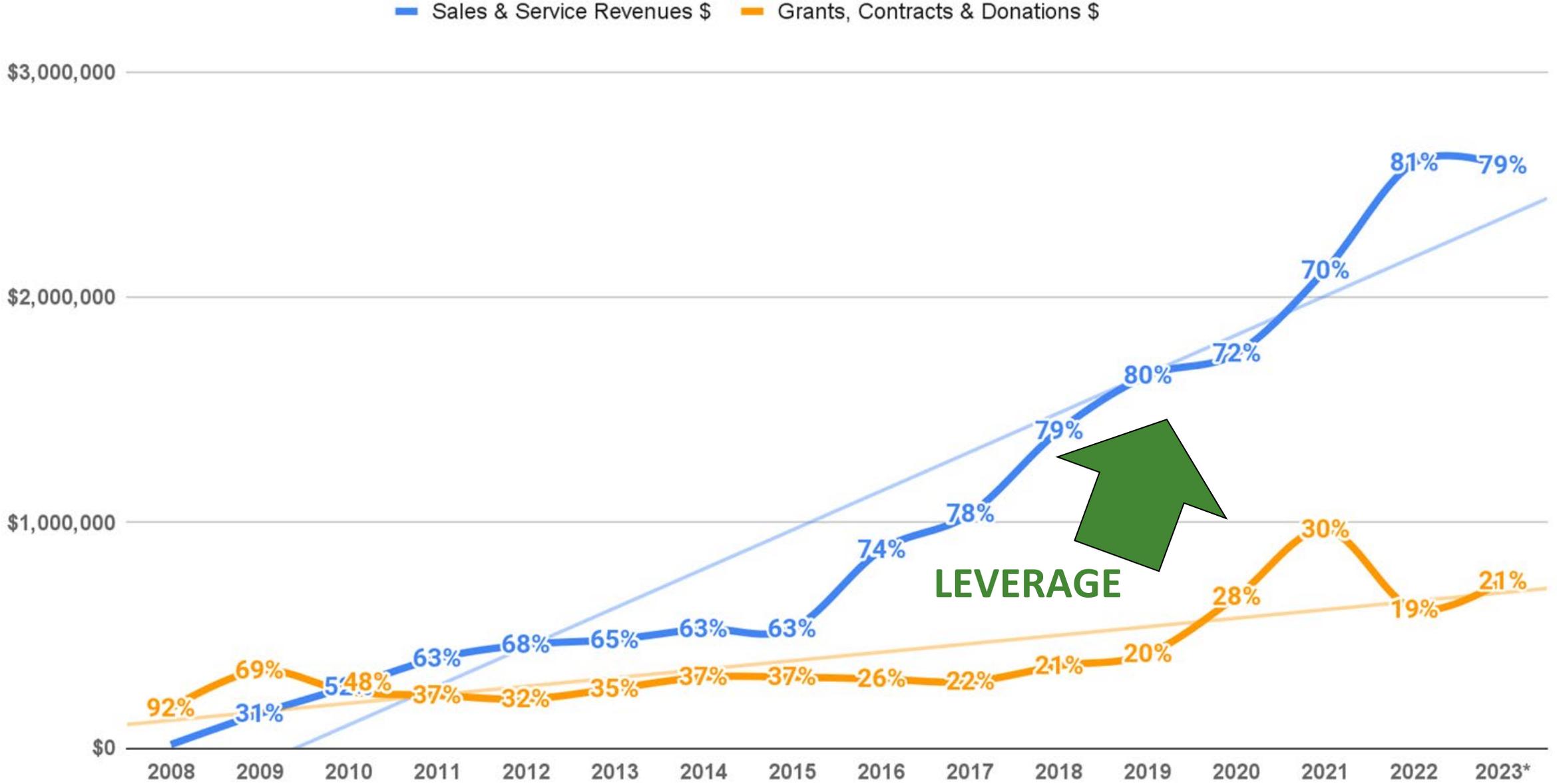


BAD
Batteries

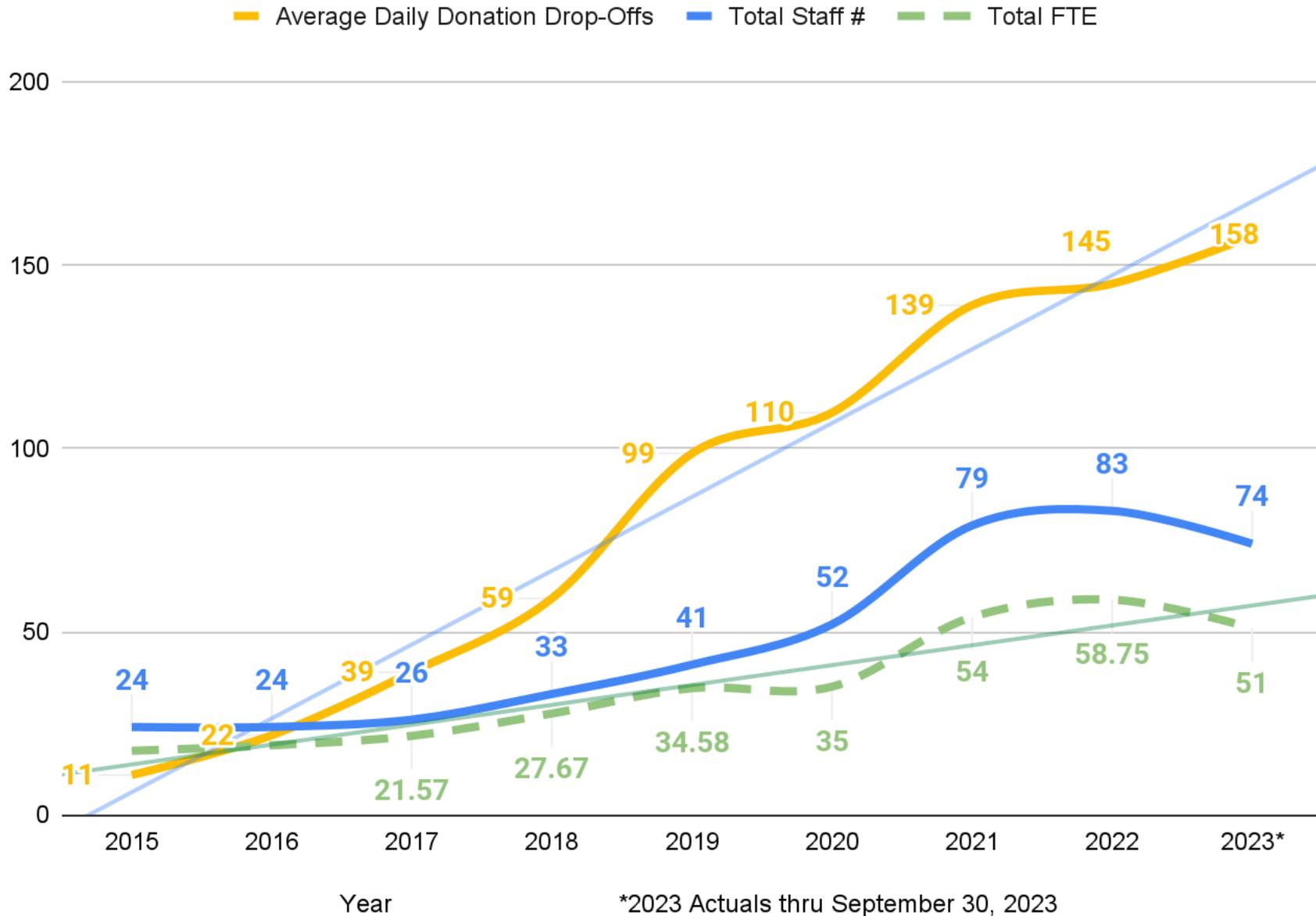
Earned vs. Contributed Revenue History



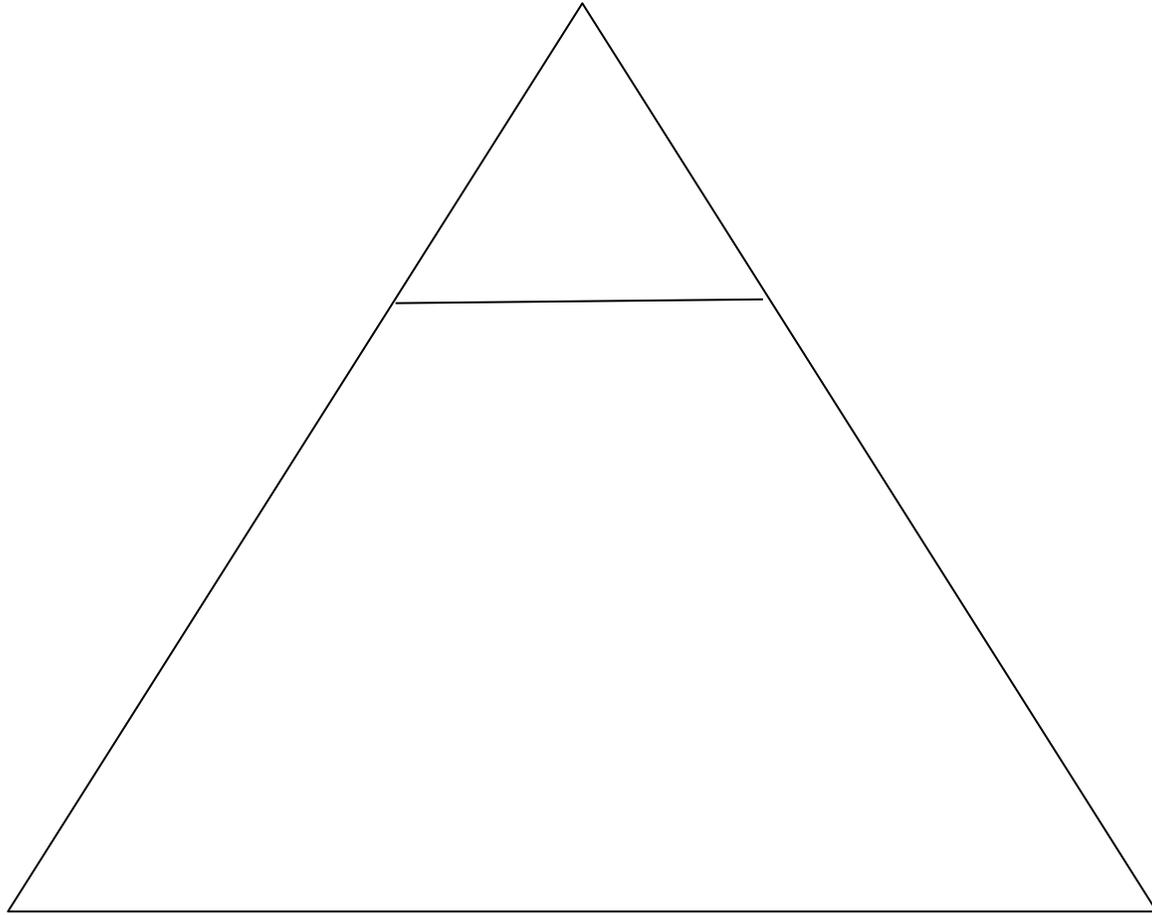
Earned vs. Contributed Revenue History



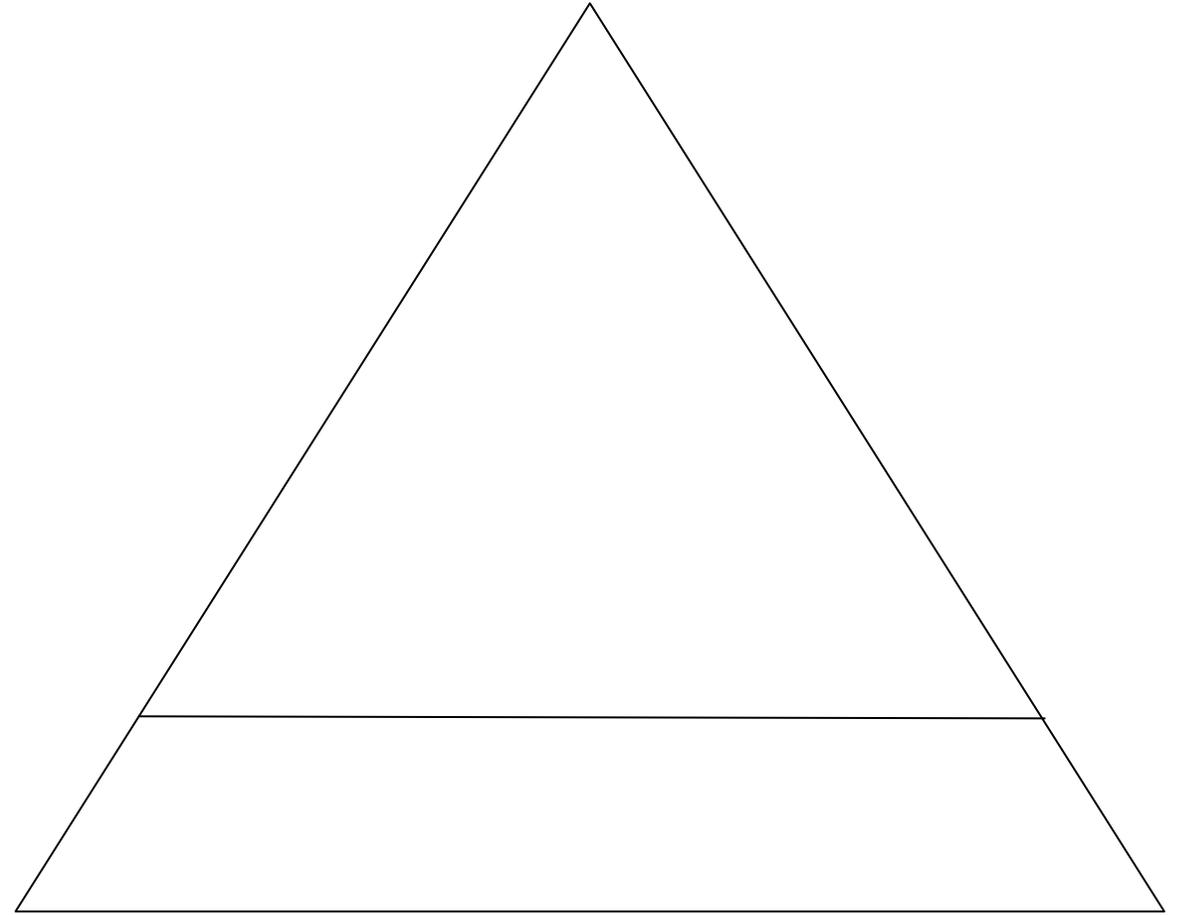
Material Donations and Staffing Growth, 2015-2023



MATERIALS MANAGEMENT CHALLENGE: VOLUME VS. VALUE

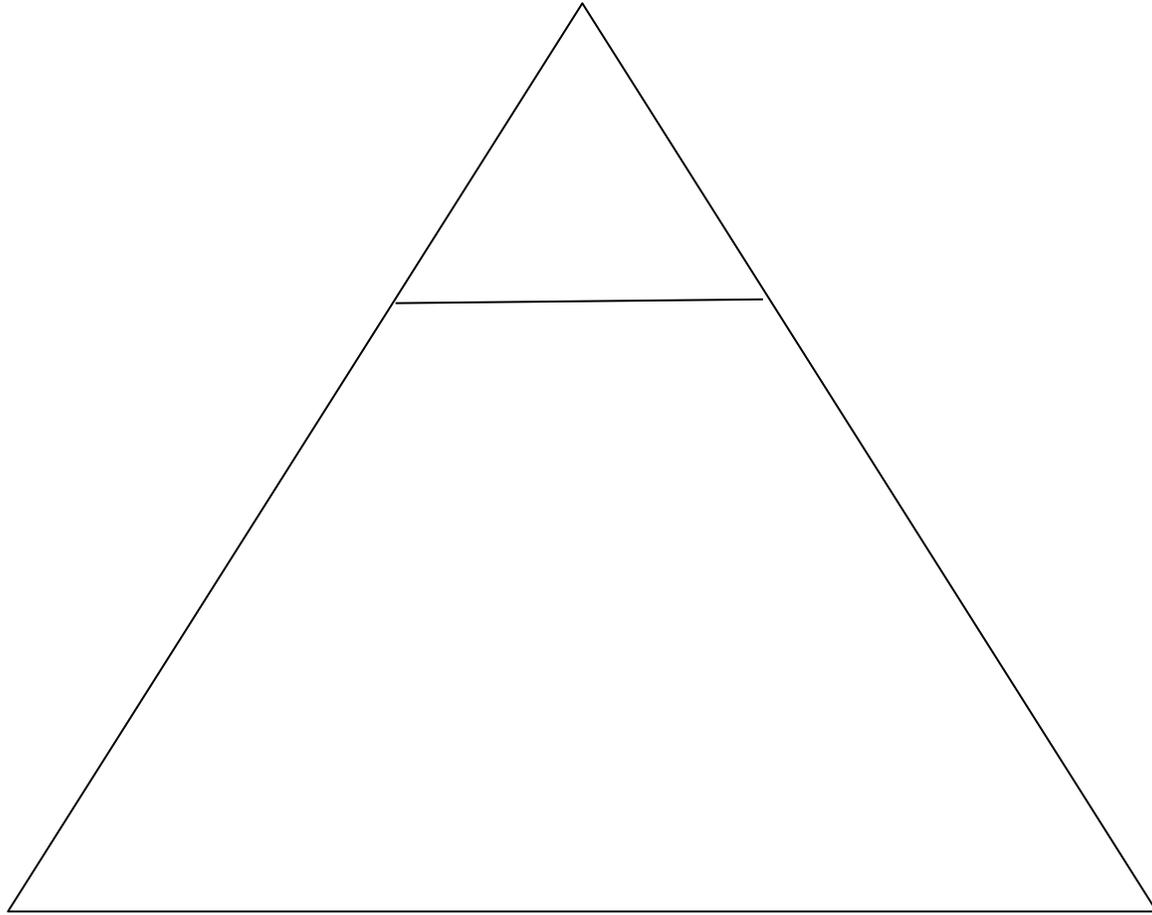


PERCEIVED VOLUME

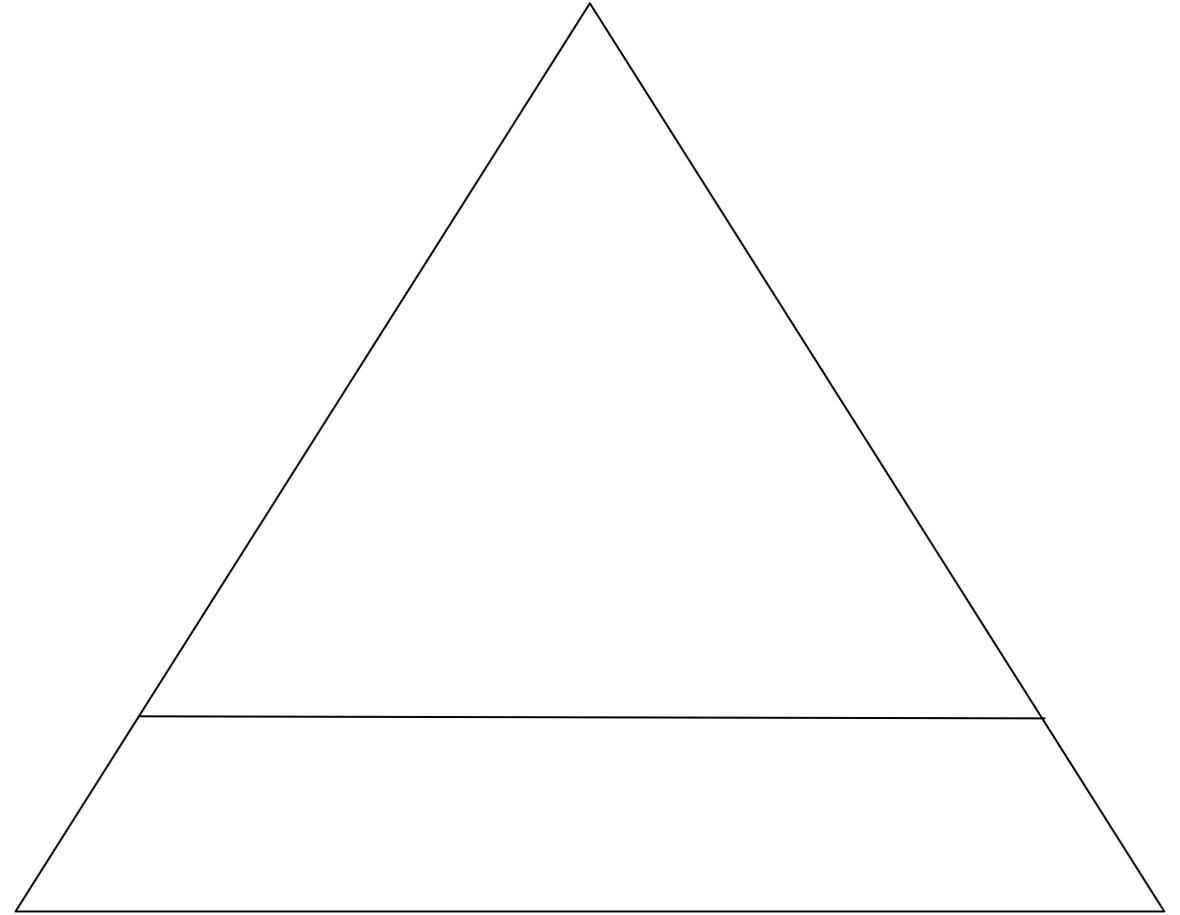


\$ VALUE

MATERIALS MANAGEMENT CHALLENGE: VOLUME VS. VALUE



PERCEIVED VOLUME



\$ VALUE

Tompkins County Materials Management Contracts 2018-2023

Reuse Contracts

1.5%

Food Waste

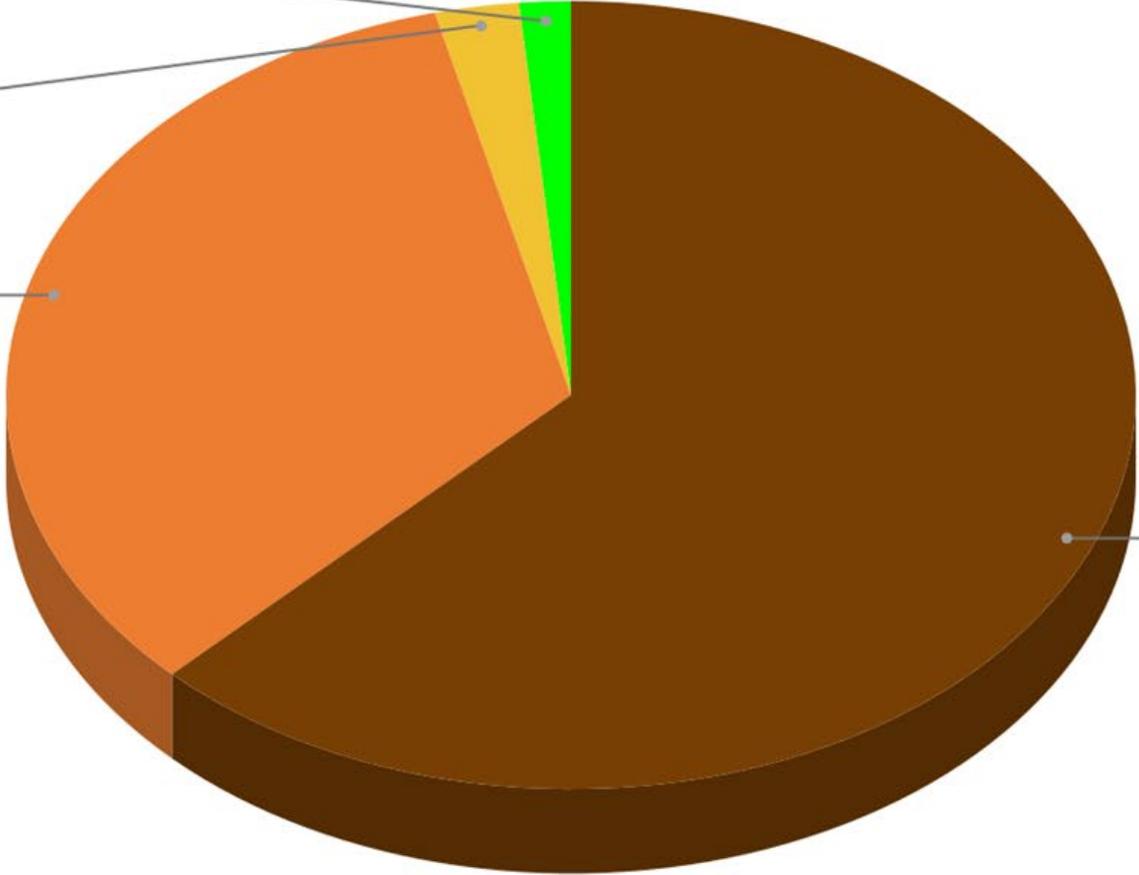
2.4%

Recycling Contracts

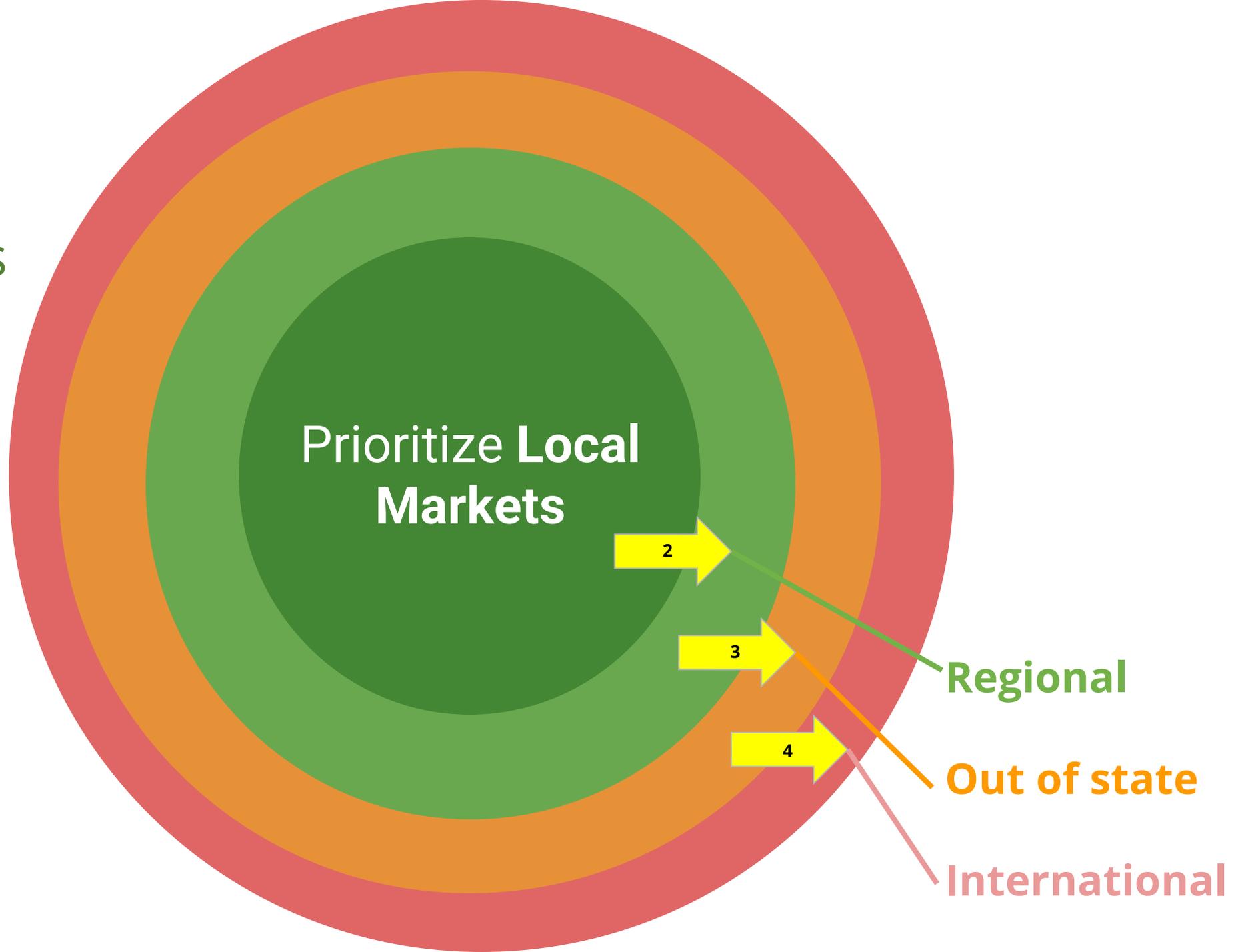
33.6%

Waste Contracts

62.5%



Environmental
Material
Movement to
Market **Priorities**



ReUse System of “HUBS” and “Exchanges”

HUBS - a system or network of large warehouses with high ceilings and loading docks to harvest and process reusable, repairable and refurbishable materials, driven by public/private partnerships, with good paying jobs and multiple workforce development activities. Focus on largest volume/highest value materials: Building Materials, Mattresses, Appliances, Textiles, Repair and Light Manufacturing, Reverse Logistics

EXCHANGES - a generic term for used material marketplaces including all used material retail outlets and donation drop offs including: Community ReUse Centers, thrift stores, specialty shops, antique stores, auction houses, online platforms, **start up enterprises**. May be non-profit, for-profit and may include value-added activities such as repair and refurbishing services

ReUse “HUBS” and “Exchanges”

GOAL: To develop a COMPREHENSIVE* AND JUST** system to filter out ALL reusable, repairable, refurbishable, and valuable products and materials from the waste that will otherwise be burned or buried.

***COMPREHENSIVE:** Sufficient investment in material collection systems and services, including deconstruction and design for disassembly and repairability, sorting mechanisms, assessment valuations, market pathways

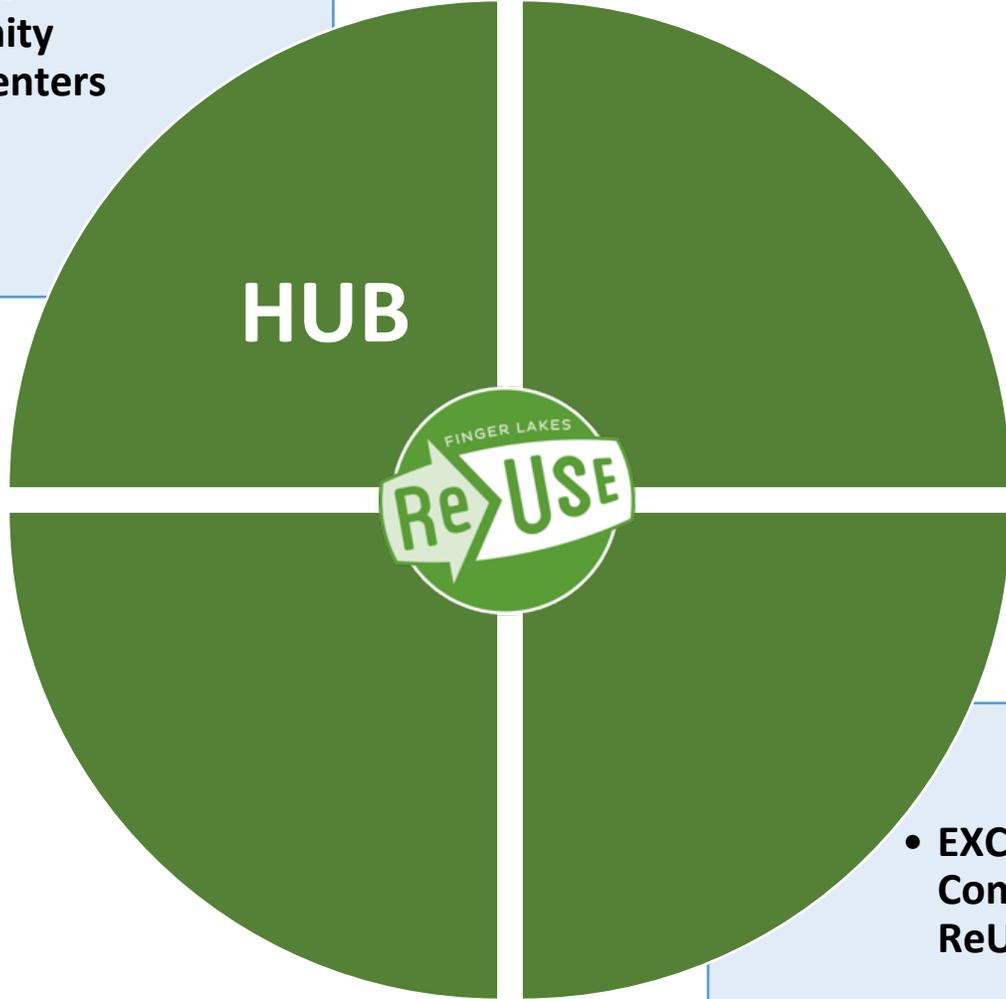
****JUST:** Inclusive, fair, best labor practices, respectful treatment will promote workforce engagement and good job experiences in



2008
Community
ReUse Center

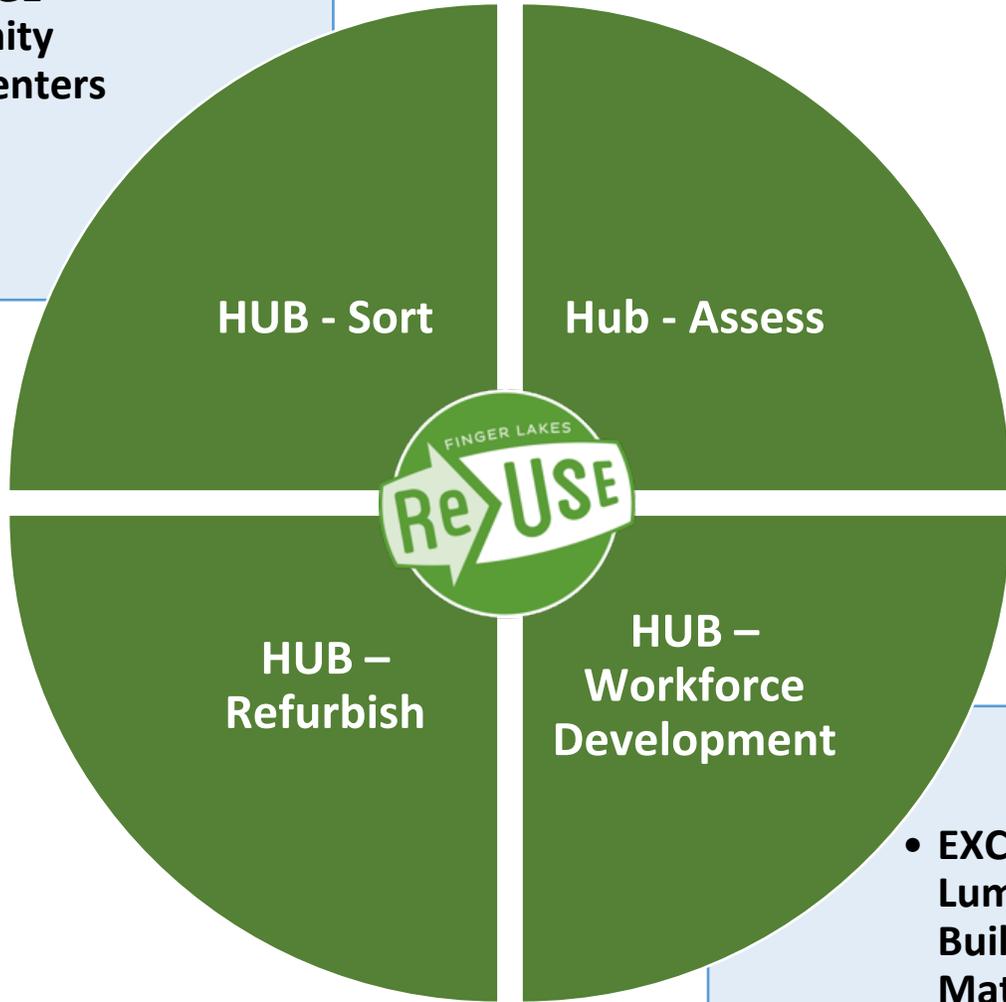


- **EXCHANGE –
Community
ReUse Centers**

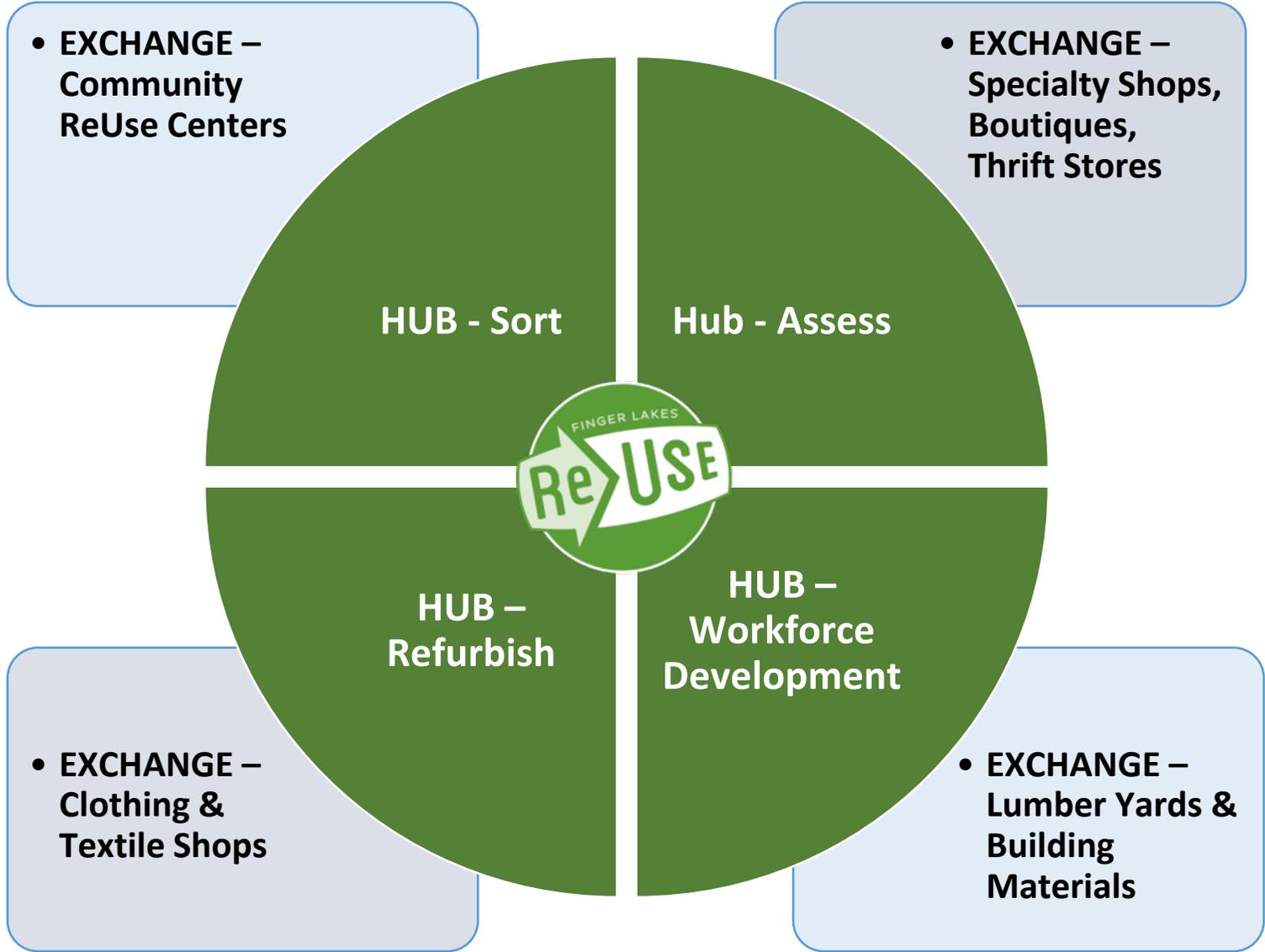


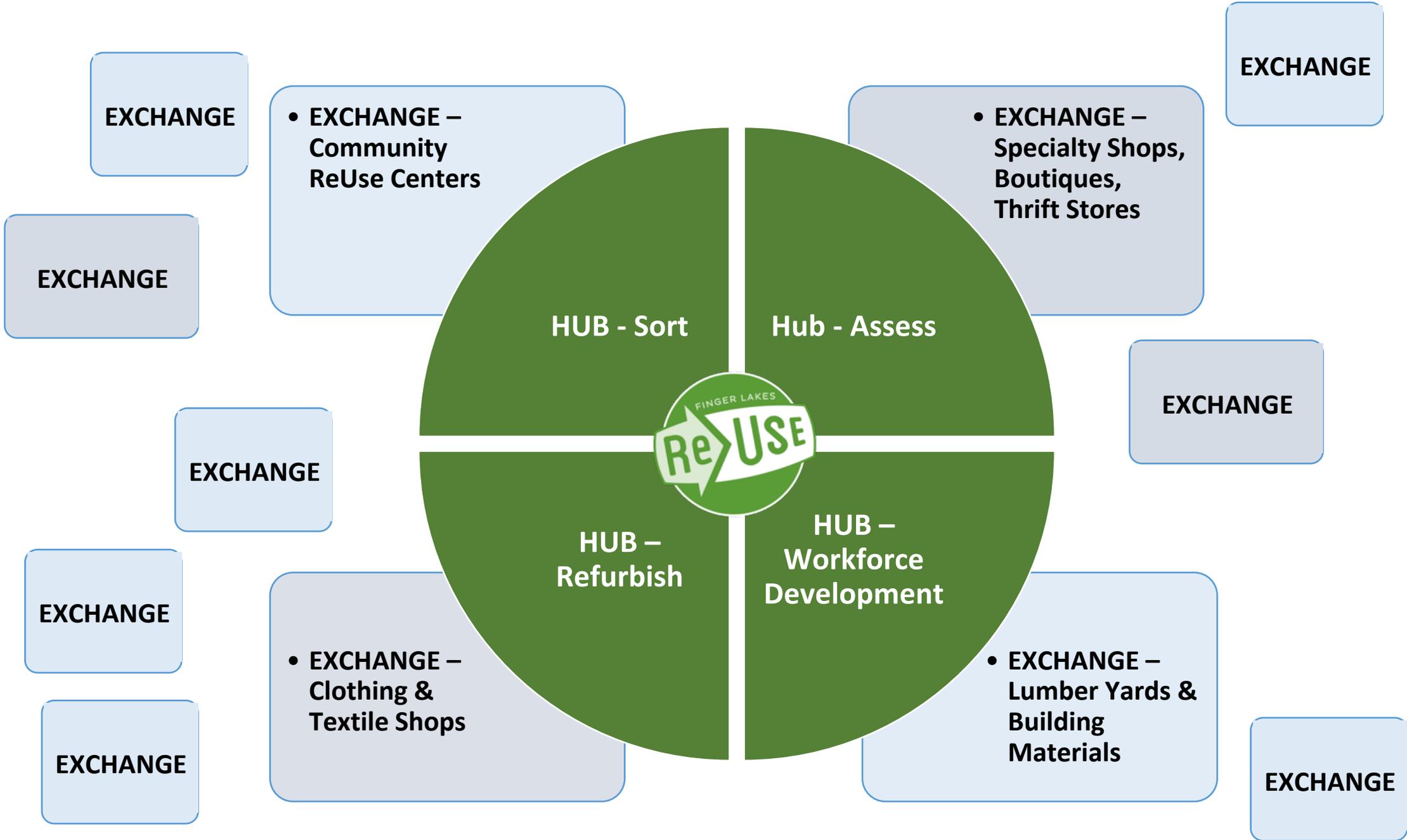
- **EXCHANGE –
Community
ReUse Centers**

- **EXCHANGE – Community ReUse Centers**



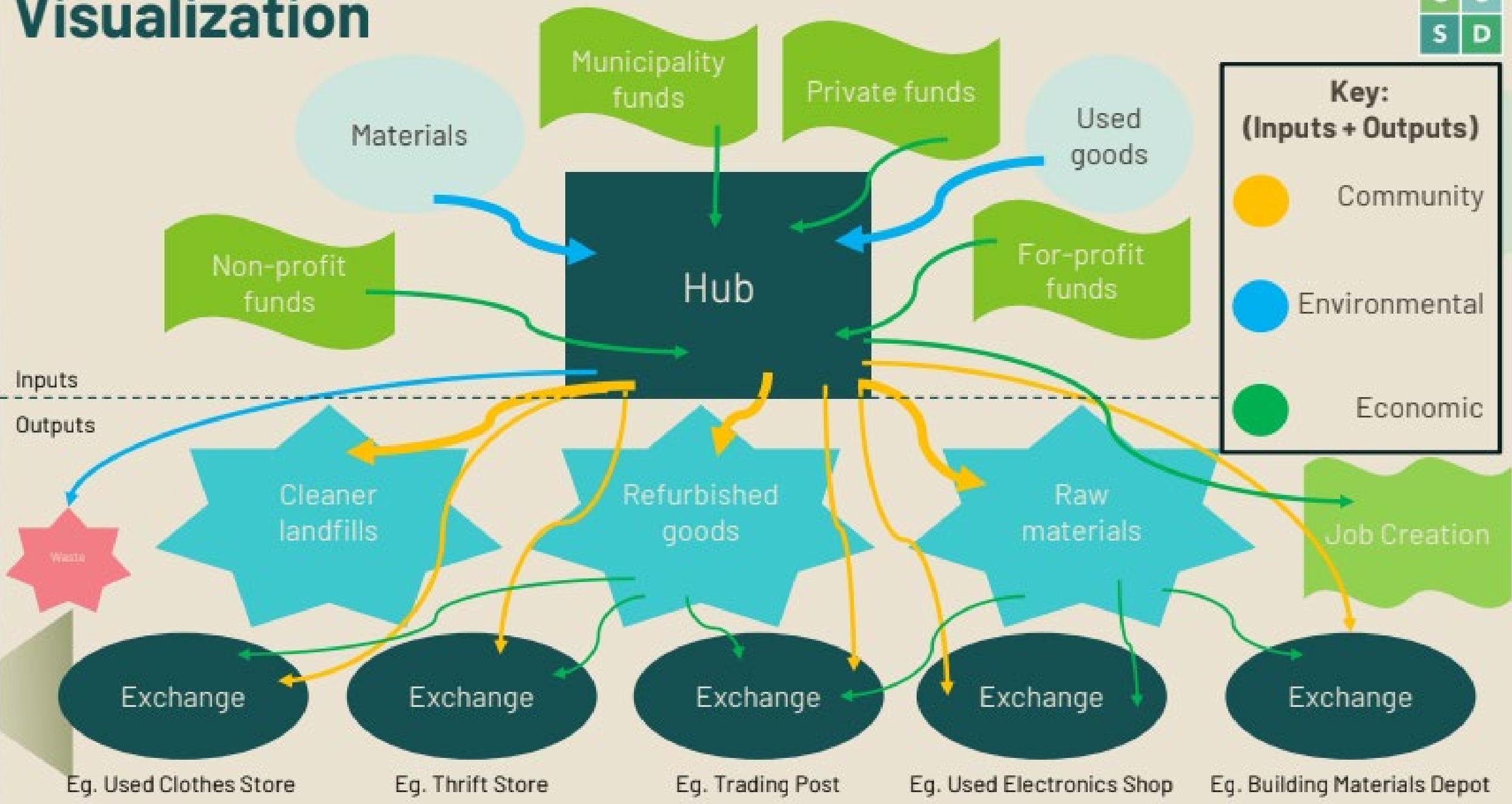
- **EXCHANGE – Lumber Yards & Building Materials**





Visualization

| | |
|---|---|
| C | U |
| S | D |





DONATION
DRIVE THRU

↑
DONATION
DRIVE







THANK YOU



RECYCLING AND MATERIALS MANAGEMENT OF TOMPKINS COUNTY

PARK FOUNDATION



TRIAD FOUNDATION



Department of Environmental Conservation

Community Foundation of Tompkins County



Ithaca Urban Renewal Agency

TRADE DESIGN BUILD



New York State Association for Reduction, Reuse and Recycling



WOMEN BUILDING COMMUNITY



Ithaca Area Economic Development

Alternatives FEDERAL CREDIT UNION Where Good Things Happen



Appalachian Regional Commission

Empire State Development

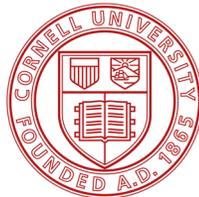


Nonprofit Finance Fund

STREAM COLLABORATIVE architecture + landscape architecture dpc

KENDAL at Ithaca

Rotary Club of Ithaca, NY



Cooperative Extension Tompkins County

CASCADE ALLIANCE Sustainable Work. Stronger Communities.

Diane Cohen - diane@fingerlakesreuse.org



Sustainable Broome Lunch & Learn Panelist Series



Questions and Discussion



**Cornell Cooperative Extension
Broome County**



Sustainable Broome Lunch & Learn Panelist Series

Tentative Session Topics

- Southern Tier Energy Systems
- Clean Energy Economies
- Green Buildings
- Organics Management
- Flood Resiliency
- Land Conservation
- Smart Growth
- Transportation



**Are other topics
or presenters
you would like
us to include?**



Sustainable Broome Lunch & Learn Panelist Series



Thank You!

Next Session Tentative Date:
April 19th 12-2pm



Cornell Cooperative Extension
Broome County