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Today's Panelists

Kelley Dennings

Senior Campaigner

Center for

Biological Diversity

Dr. Dagny Tucker

Co-Founder

Perpetual

Macy Zander

Reuse Communities Policy & Engagement Officer

Upstream

Join the Discussion

From your toolbar:

Share your experience & opinions

Look for links to resources

Type direct questions for panelists

Live Poll #1

What formal reuse / waste prevention initiatives are in place in your facility / community? *(check any that apply)*

- Materials exchange
- Regular repair fair events
- Tool, equipment, etc. lending library
- Reusable drink / food-ware – "Closed" system *(stays within facility: theater, etc.)*
- Reusable drink / food-ware – "Open" system *(for to-go, off-site use)*
- Incentives for people to bring own reusable drink/ food containers
- Other *(share details in the chat)*

Waste Reduction: Messaging and Getting to Change

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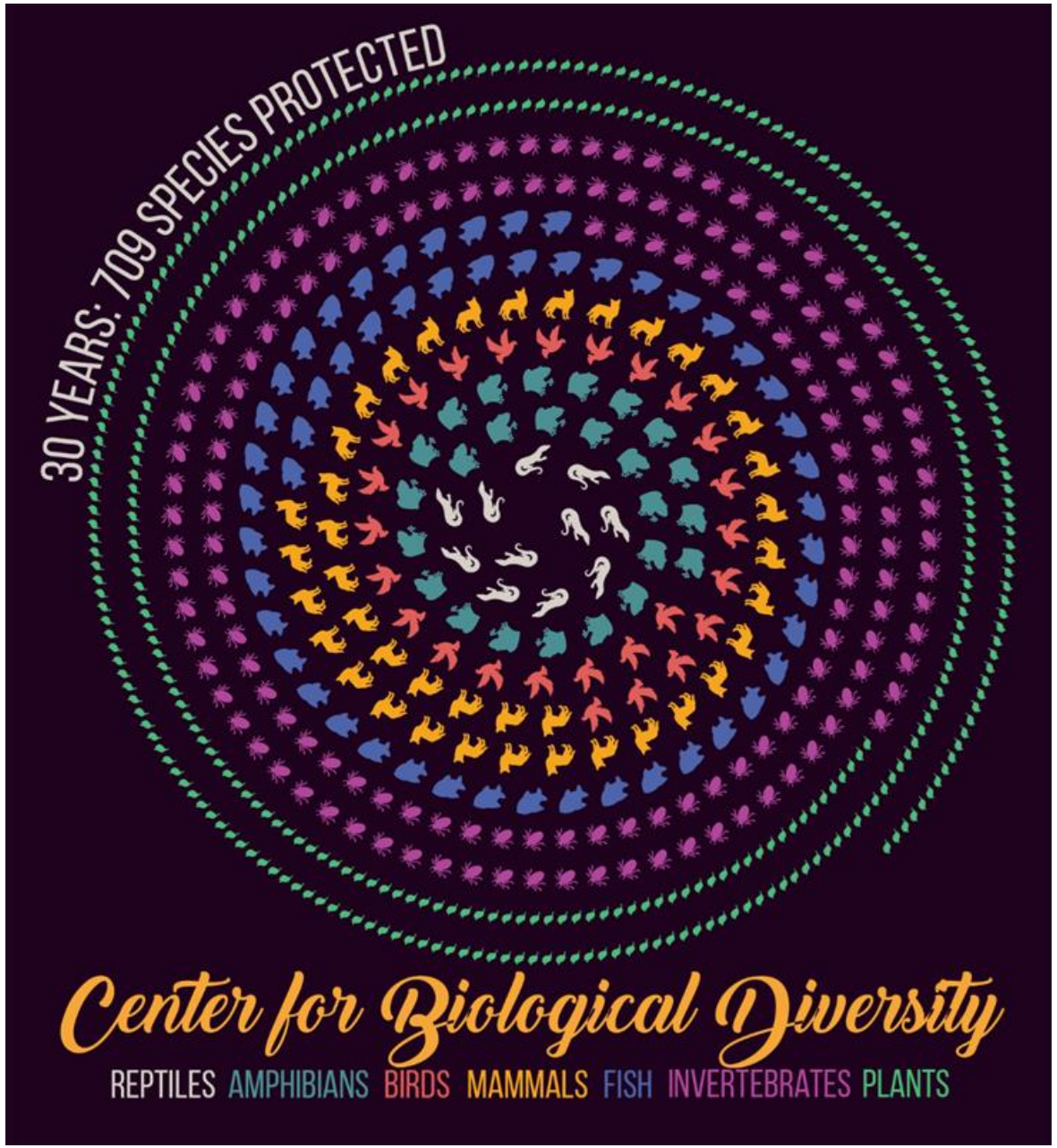
Picture: Source: Canva, Talking Trash: US Perspectives on the language of waste reduction, Center for Biological Diversity, 2023, https://bit.ly/WasteReductionReport



- Carnivore Conservation
- Climate Law Institute
- Endangered Species
- Energy Justice
- Environmental Health
- International
- Oceans
- Population and Sustainability
- Public Lands
- Urban Wildlands

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If everyone lived like Americans, we'd need 5 Earths.

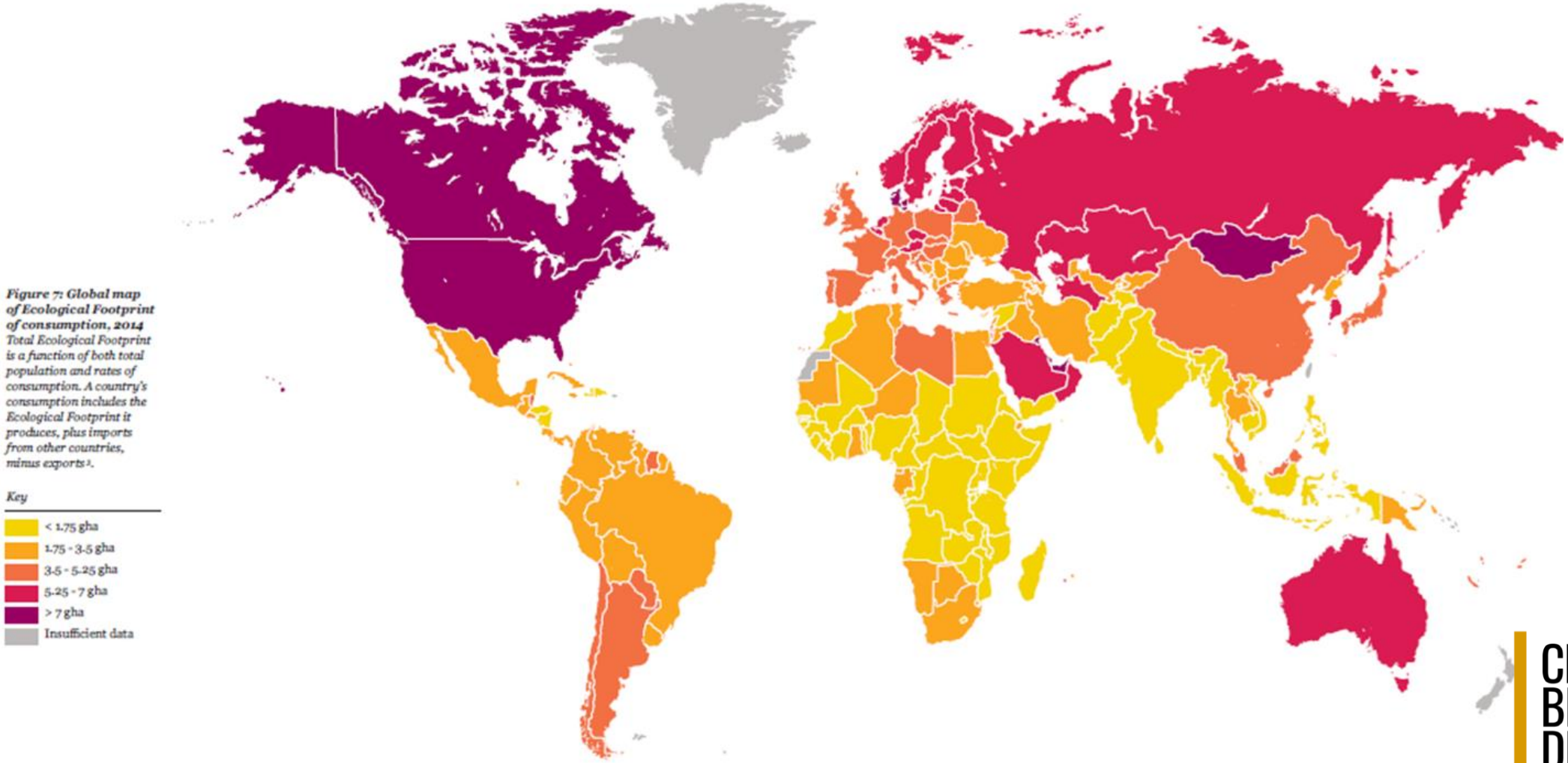

Figure 7: Global map of Ecological Footprint of consumption, 2014
Total Ecological Footprint is a function of both total population and rates of consumption. A country's consumption includes the Ecological Footprint it produces, plus imports from other countries, minus exports[3].

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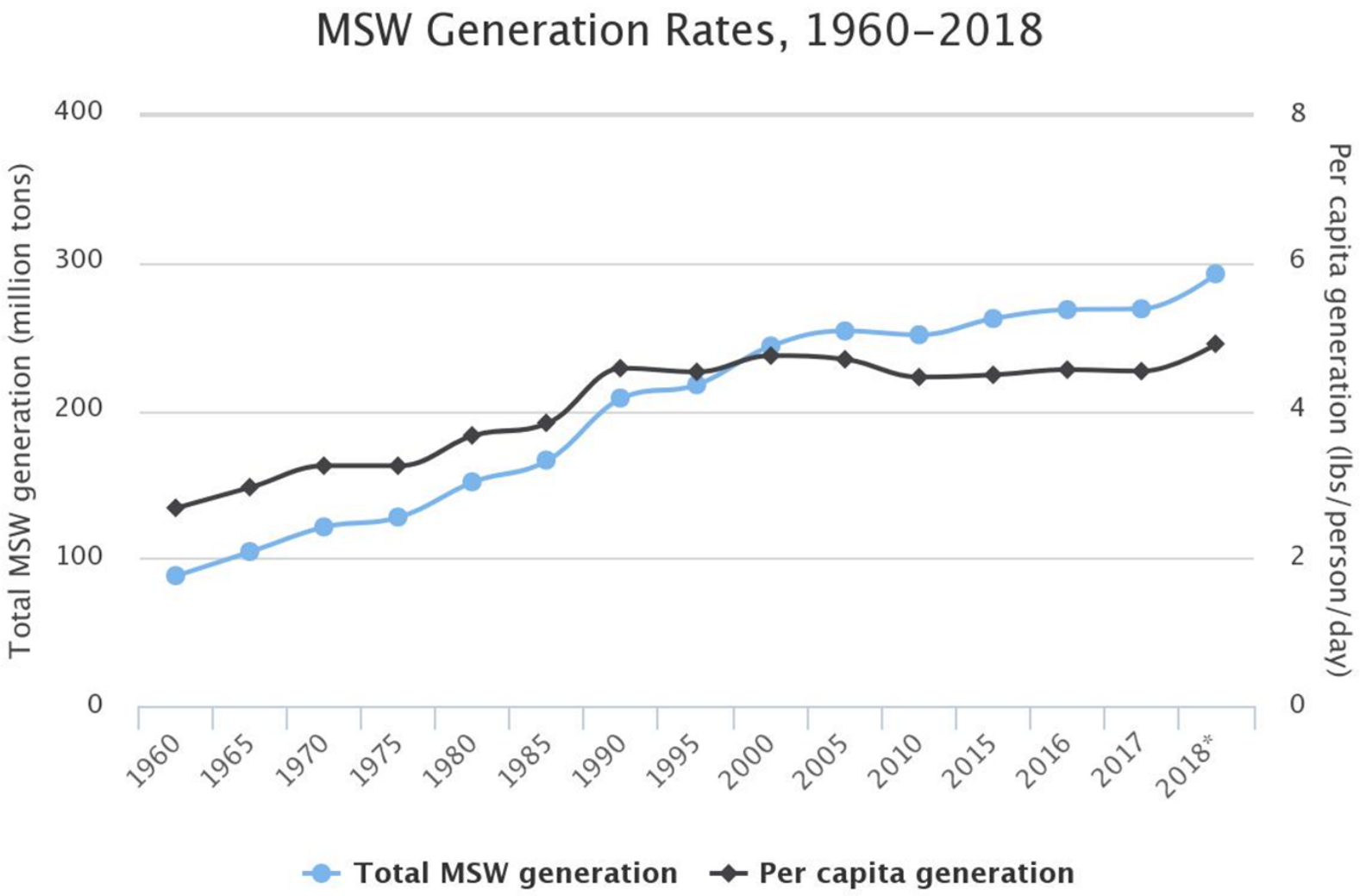
Source: WWF, Global Footprint Network

Waste per Person



Source: Environmental Protection Agency

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Behavior Change Disciplines

Social Marketing

- Kotler, 1971
- 1st way it was used - Family Planning
- 5-10 steps
- Based in theory
- Qualitative & Quantitative

Design Thinking

- Stanford D. School, '03
- 1st way it was used – App user interface
- 5 steps
- Based in ideation
- Qualitative

Behavioral Economics

- Kahneman, '02 Nobel
- 1st way it was used - Retirement savings
- 6 steps
- Based in literature
- Randomized control trial

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System Change Disciplines

Systems Thinking

- Consider connections/ relationships among different components
- Develop models using analytics
- Attention to new knowledge gained

Collective Impact

- Common agenda
- Shared measurement
- Mutually reinforcing activities
- Continuous communications
- Dedicated team (aka backbone)

https://collectiveimpactforum.org/

Organizing/ Movements

- Come together around shared problem
- Build people power through coalitions
- Democratic governance
- Focus on equity

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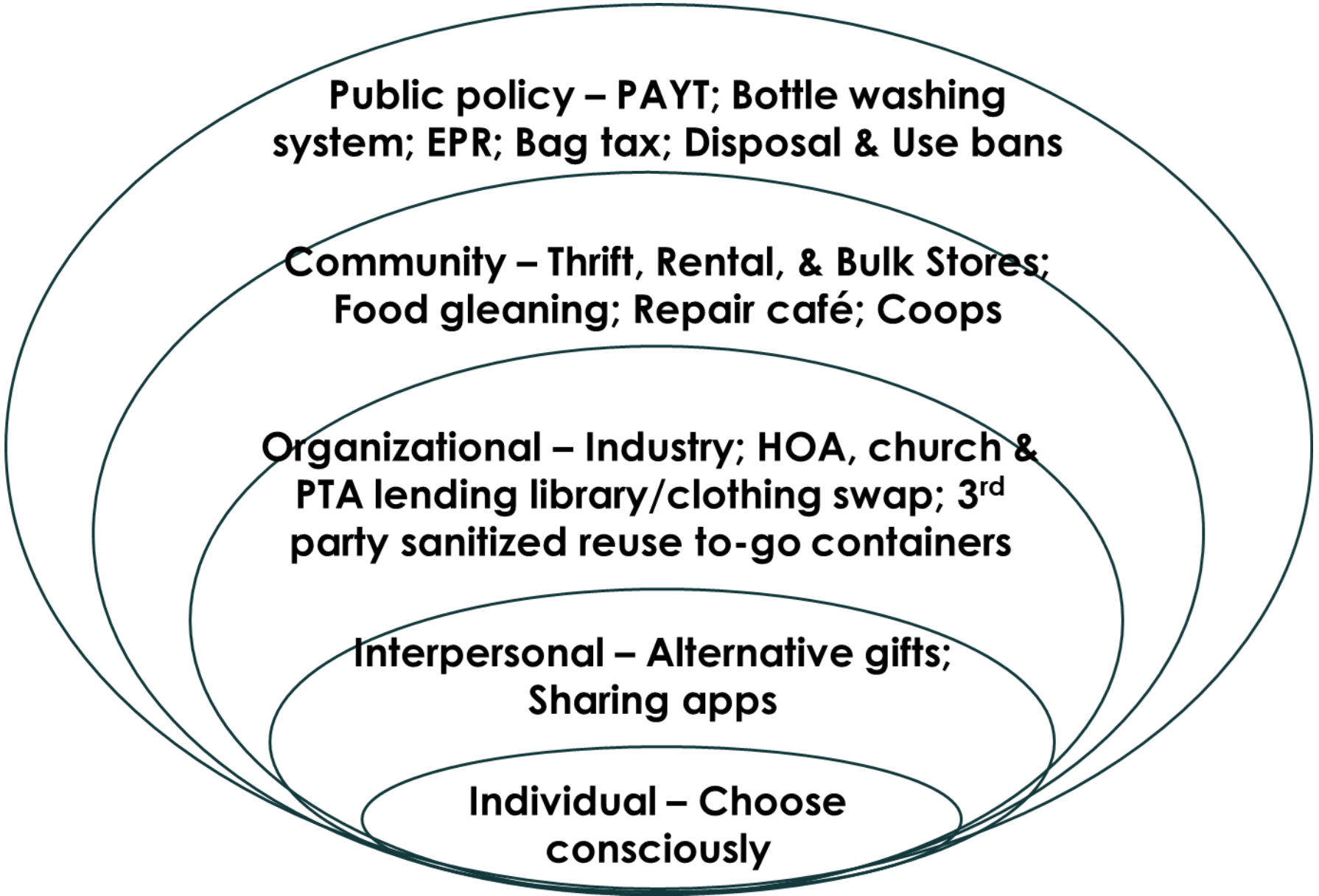
Social Ecological Model



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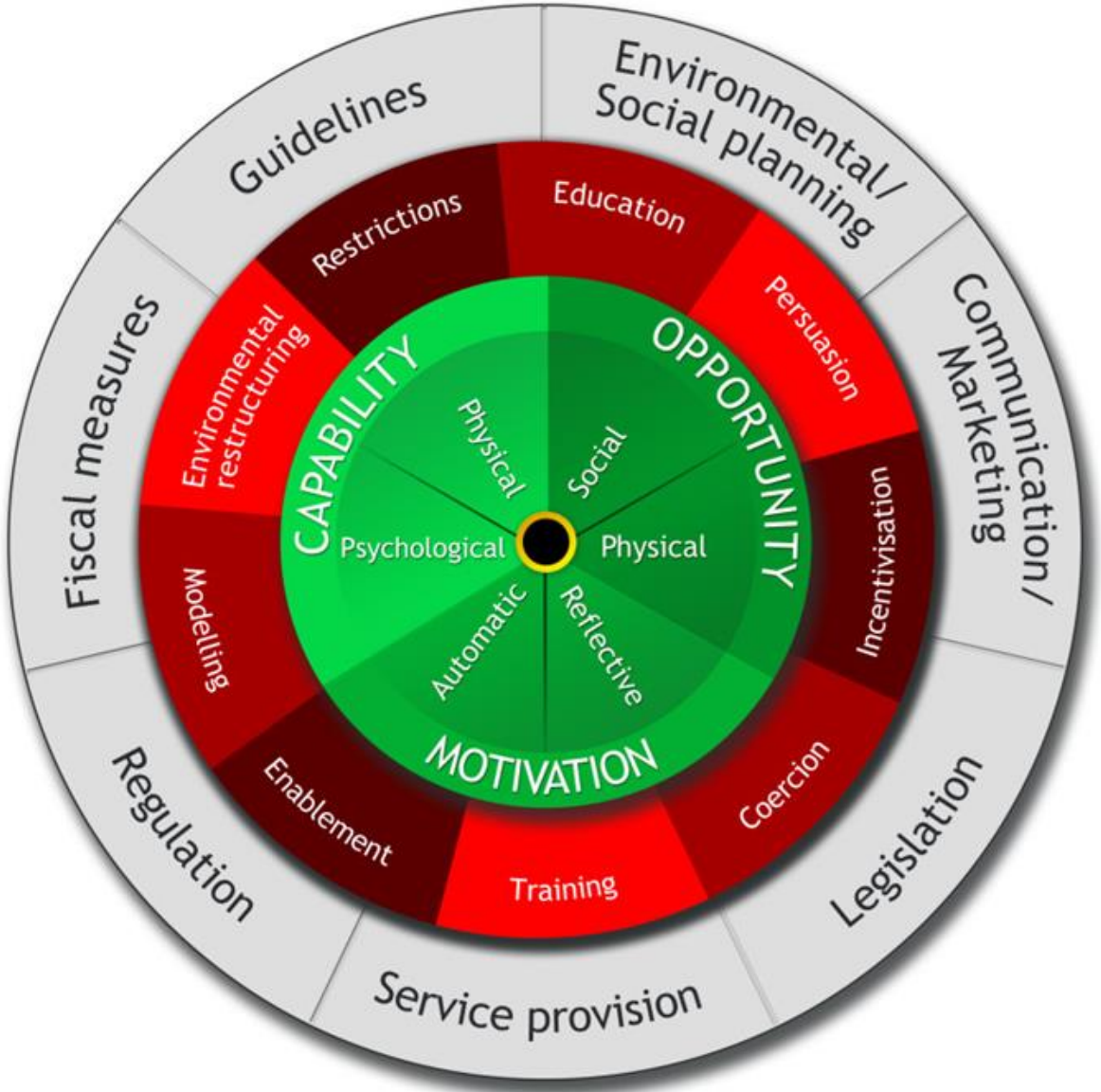
Behavior Change Wheel

Sources of behaviour

Intervention functions

Policy categories



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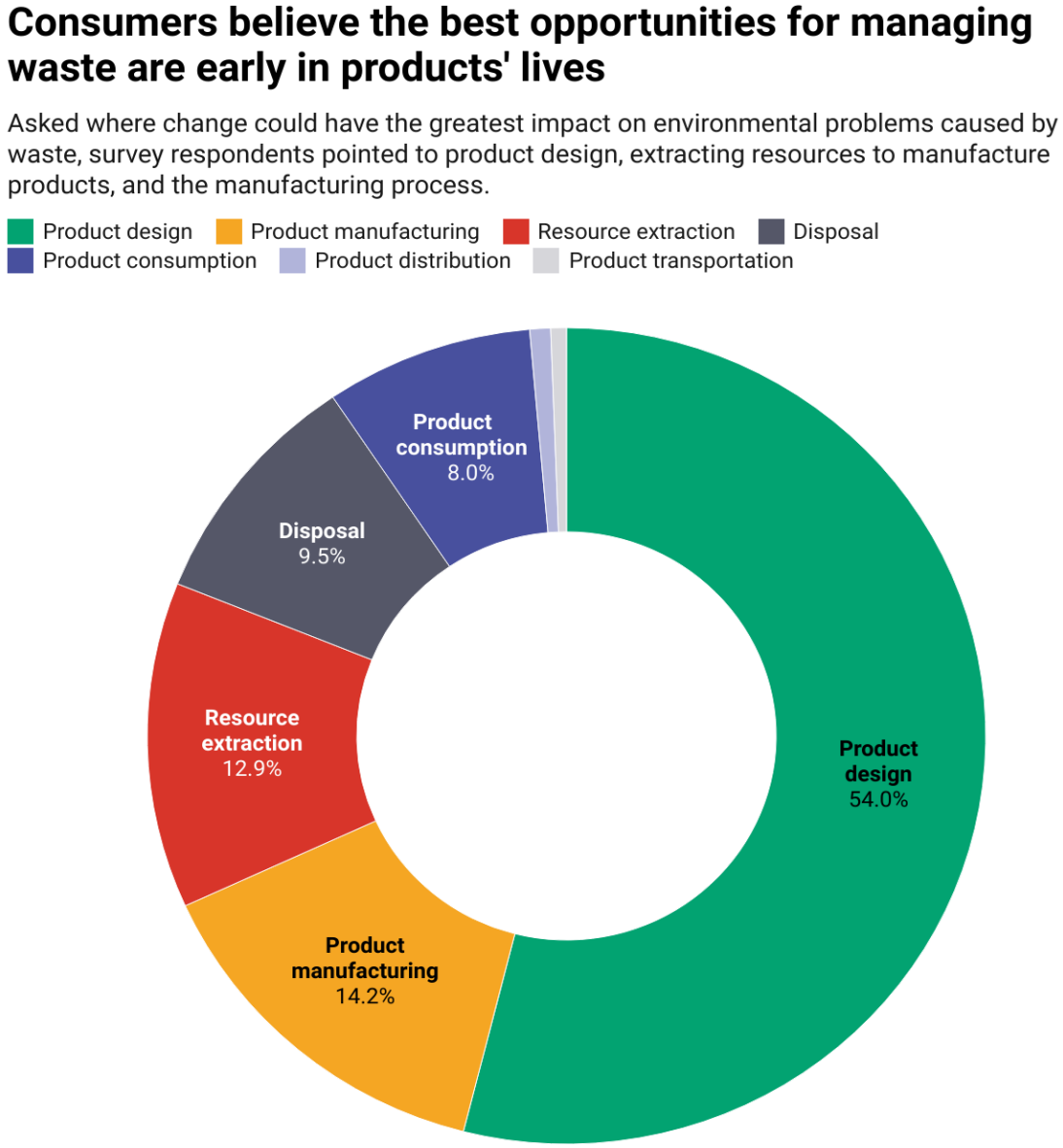
Waste Reduction Metrics

- **Extraction** – Reduction in virgin material use per individual item per year
- **Manufacturing/Producers** – Reduction in the number of new products being manufactured, Increase in products that can be repaired, Increase in a product's durability/length of time it is usable
- **Packaging** - Increase in number of products sold unpackaged or in reusable packaging
- **Use/Procurement** - Reduction in total waste material generated divided by number of people
- **Recycling** - [TYPICAL METRIC] - Increase total amount recycled or composted divided by total material generated

Recent Journal Article

- 78% of people misorder EPA's waste management hierarchy from most to least environmentally preferred.
- 46% of people misorder reduce/reuse/recycle.
- 80% of people understand waste prevention is better than recycling which only offered those options.

Source: https://theconversation.com/decades-of-public-messages-about-recycling-in-the-us-have-crowded-out-more-sustainable-ways-to-manage-waste-208924



Research Results

- 2019 focus groups
- 2020 US consumption survey
- 2023 waste prevention message testing

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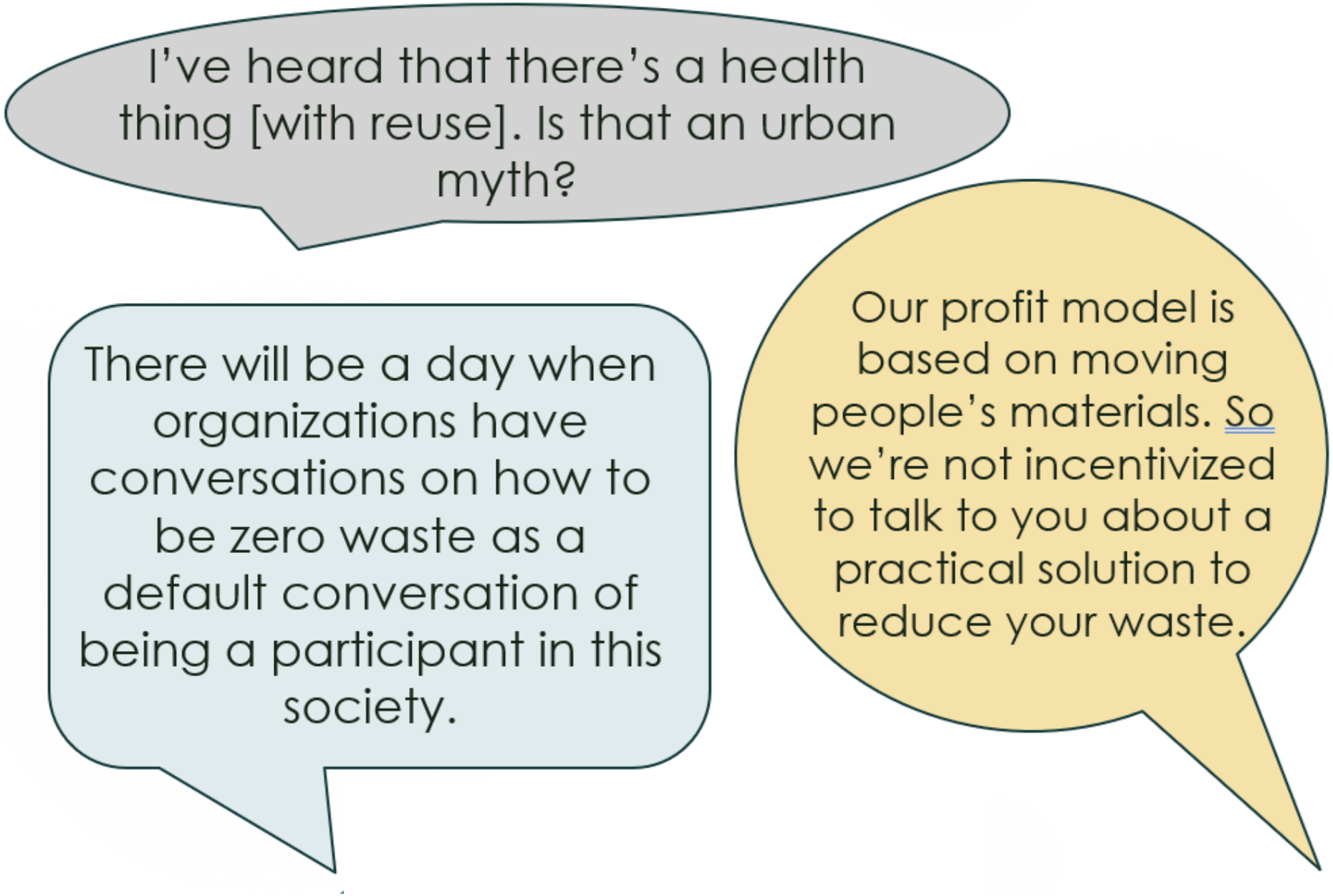

Consumption Connections, Center for Biological Diversity, Resource Recycling summary of focus groups, 2021, https://resource-recycling.com/recycling/2021/03/22/consumption-connections/

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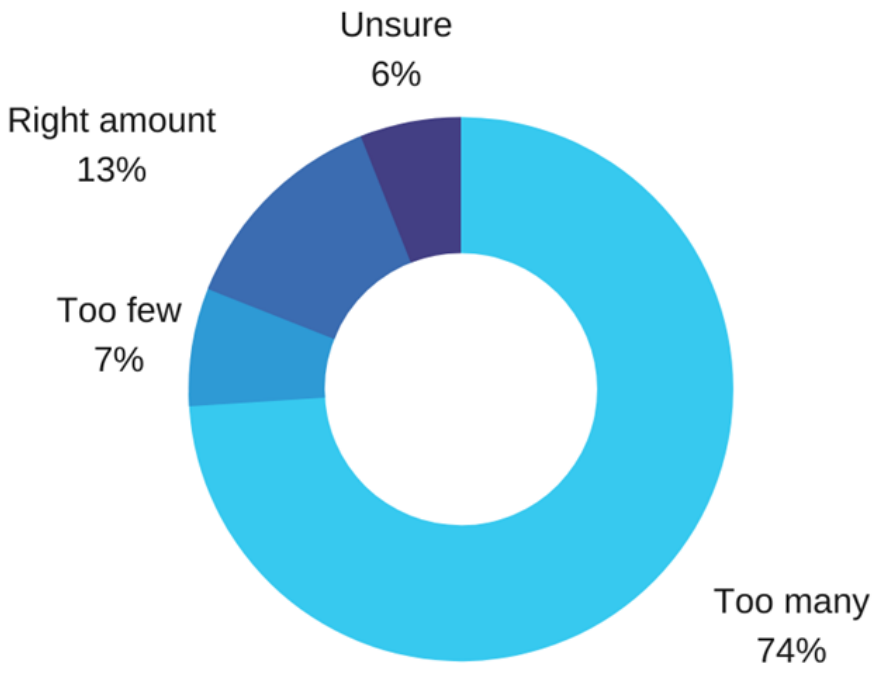
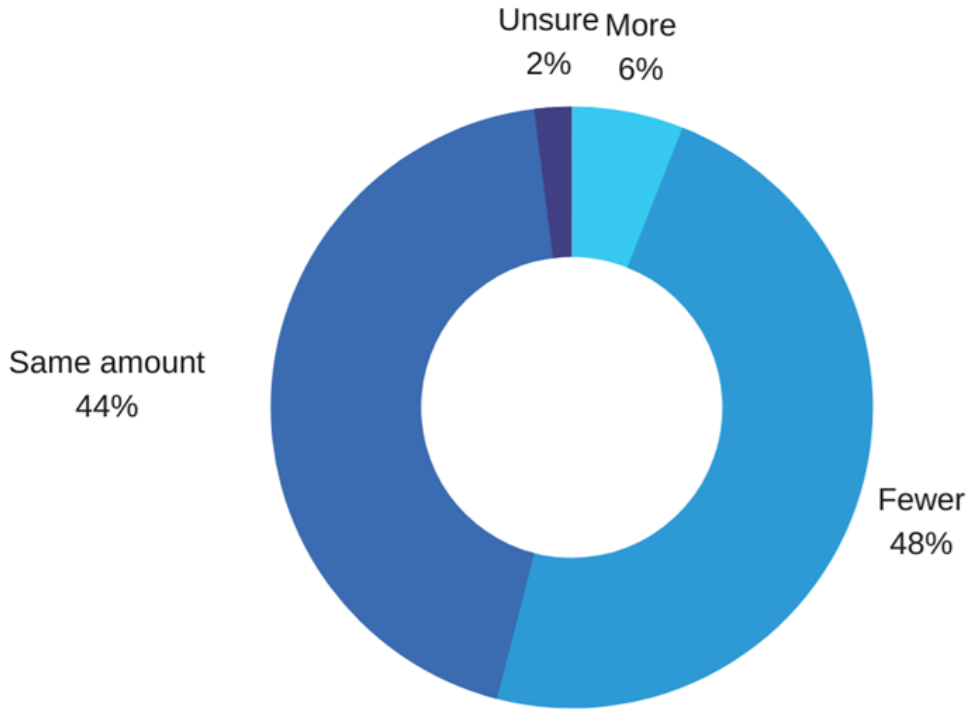
The average American consumes _____ natural resources



In comparison to the average American, I consume _____ natural resources



Contraception and Consumption in the Age of Extinction: US survey results, Center for Biological Diversity, 2020, https://www.biologicaldiversity.org/contraception_consumption

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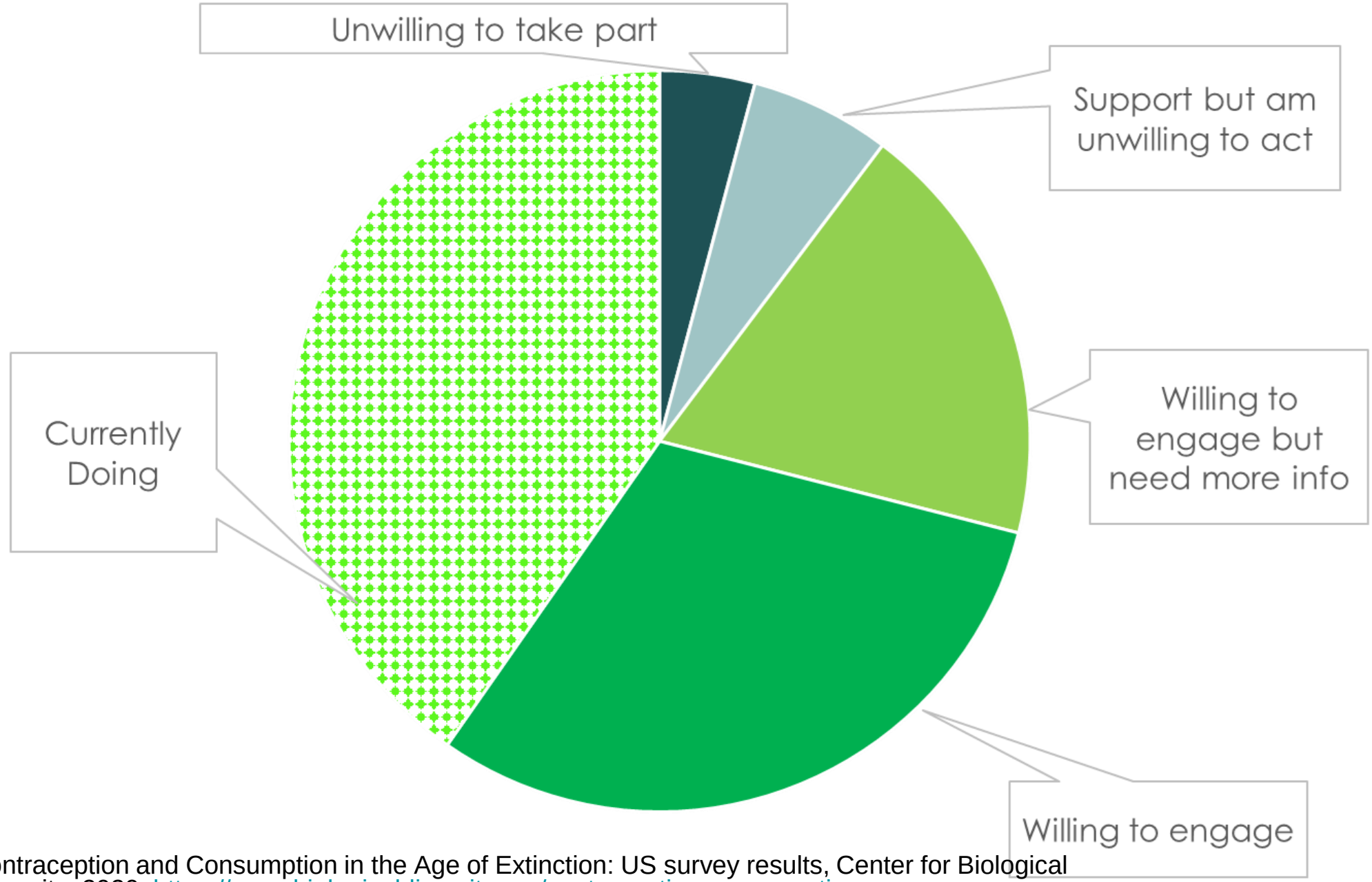

Contraception and Consumption in the Age of Extinction: US survey results, Center for Biological Diversity, 2020, https://www.biologicaldiversity.org/contraception_consumption

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Message Testing Results

- Waste reduction was preferred phrase
- Reusable water bottle denotes waste prevention
- 50% see decreasing single-use items as important to reducing waste

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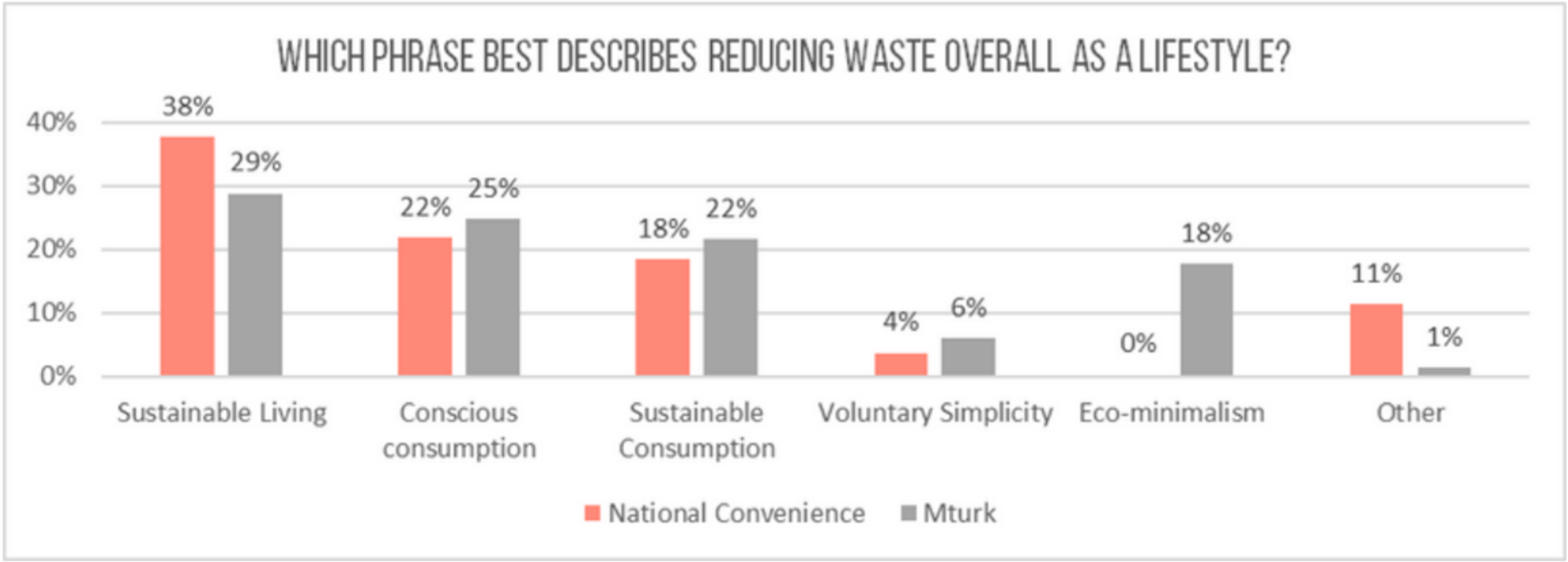

Talking Trash: US perspectives on the language of waste reduction, Center for Biological Diversity, 2023, https://bit.ly/WasteReductionReport

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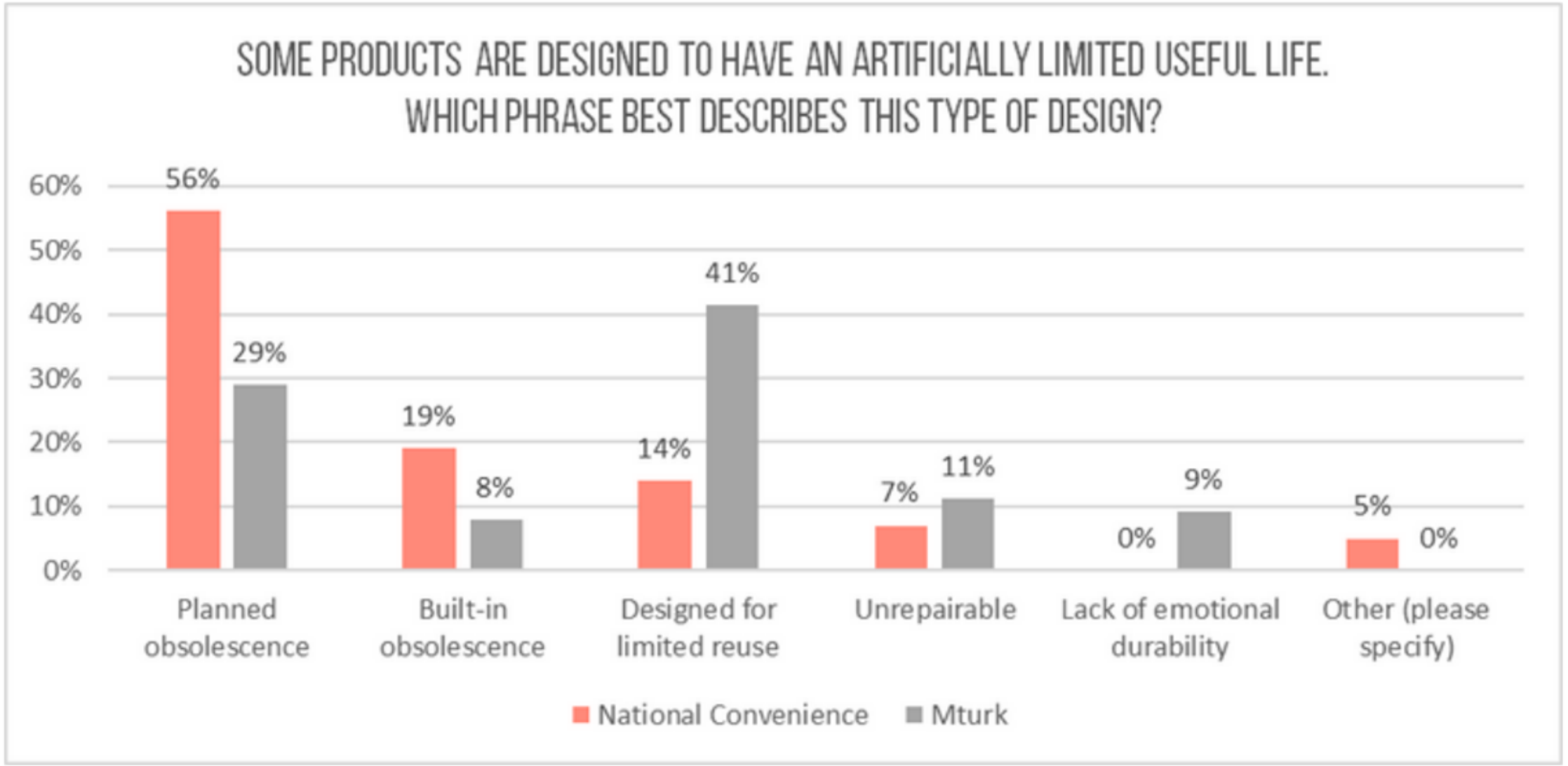

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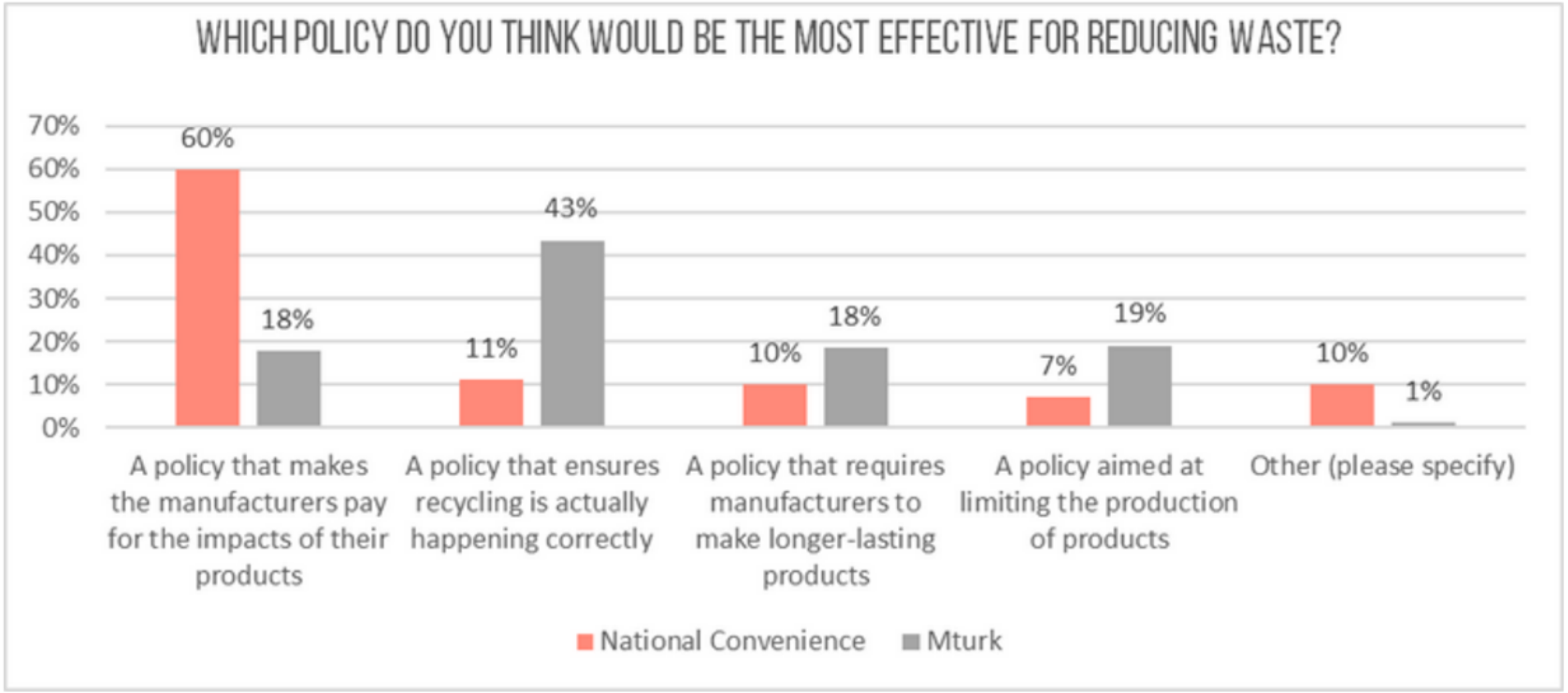

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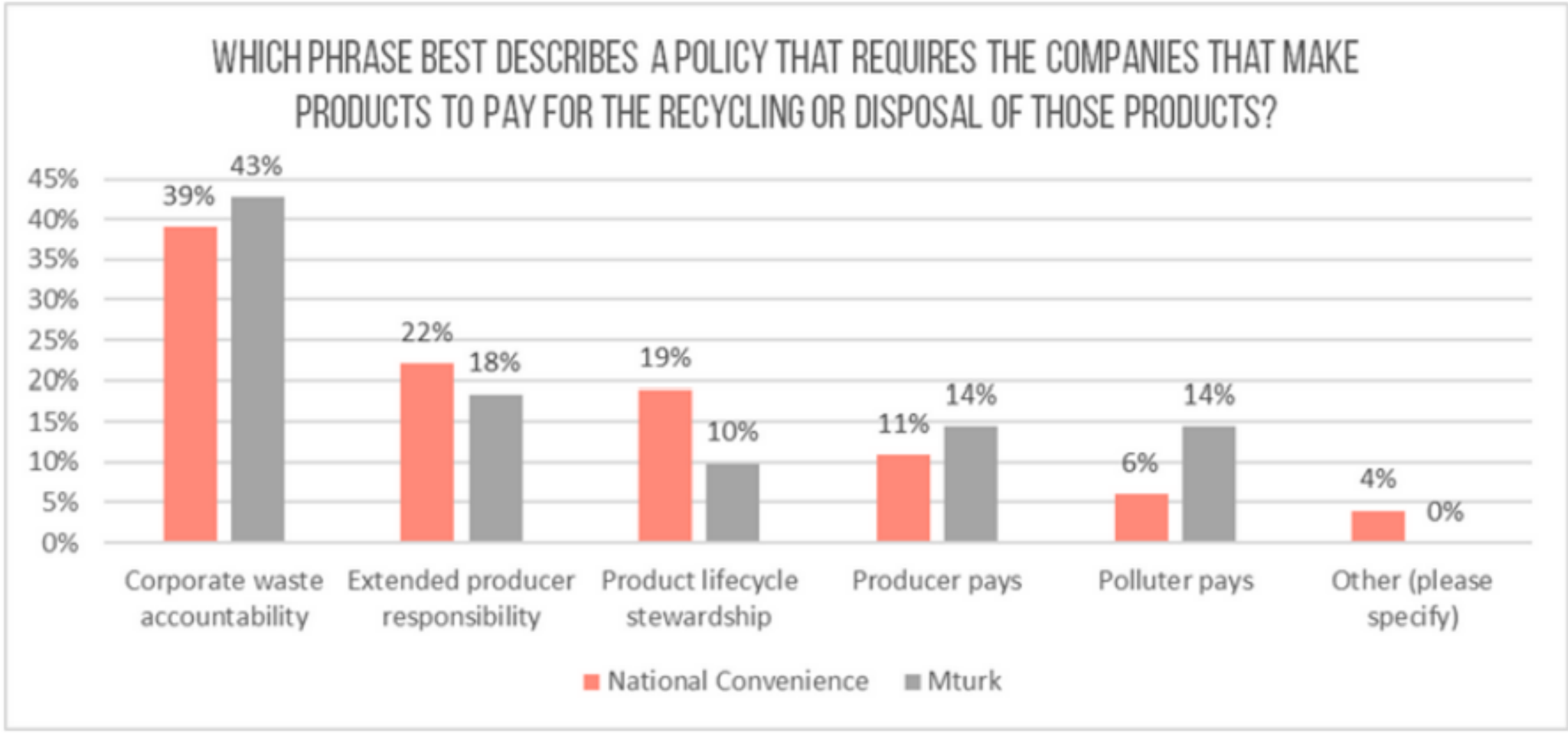

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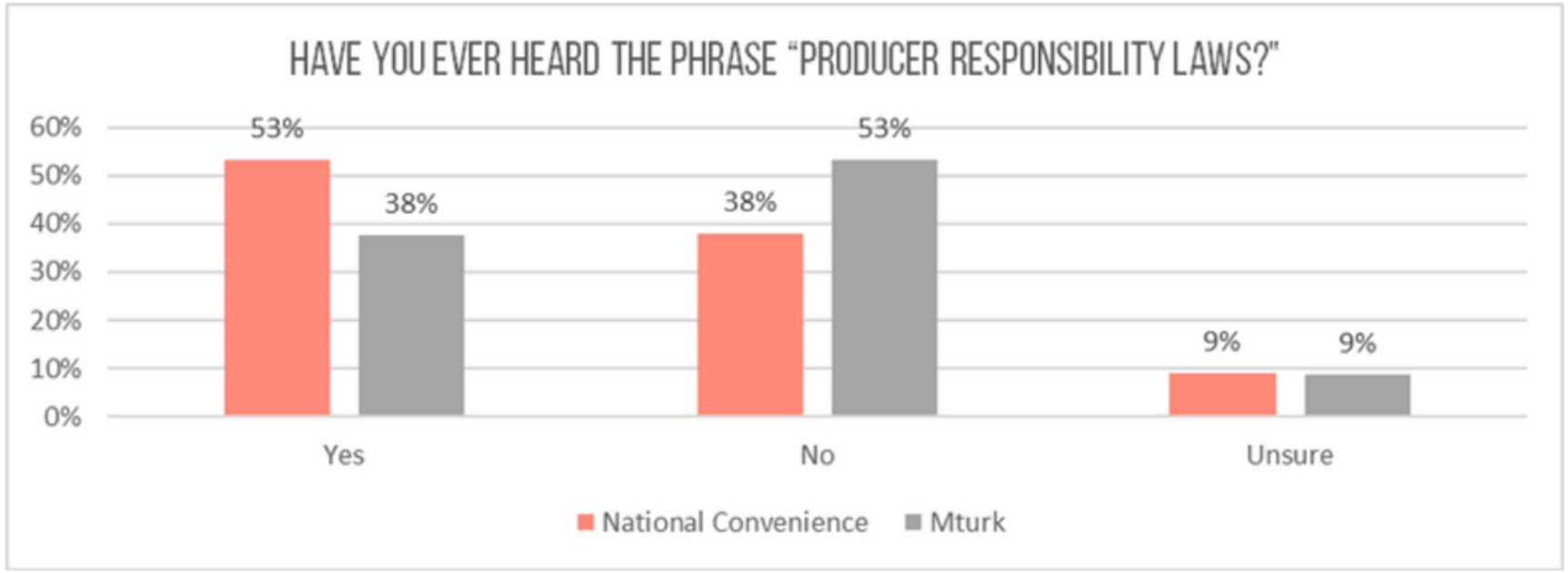

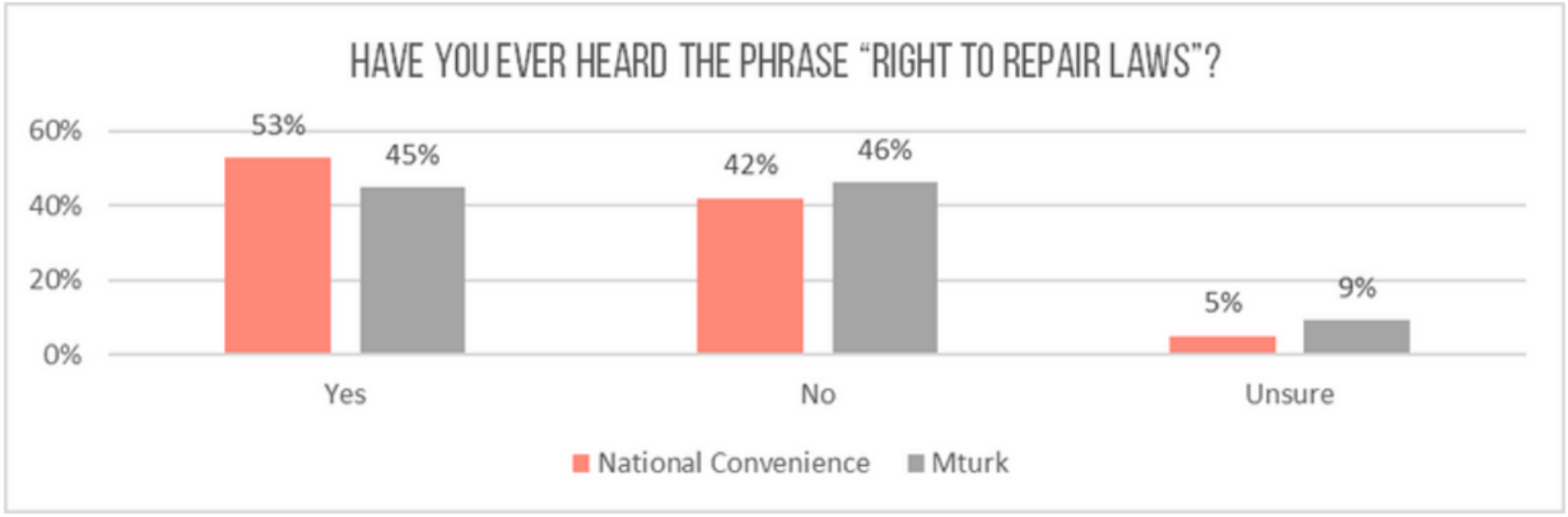

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Equality

The assumption is that **everyone benefits from the same supports.** This is equal treatment.

Equity

Everyone gets the supports they need (this is the concept of "affirmative action"), thus producing equity.

Justice

All 3 can see the game without supports or accommodations because **the cause(s) of the inequity was addressed.** The systemic barrier has been removed.

Source: An adaptation of an original illustration by Craig Froehle

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Thank you

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Live Poll #2

Which best matches your organization's near-term intentions?

(check only one)

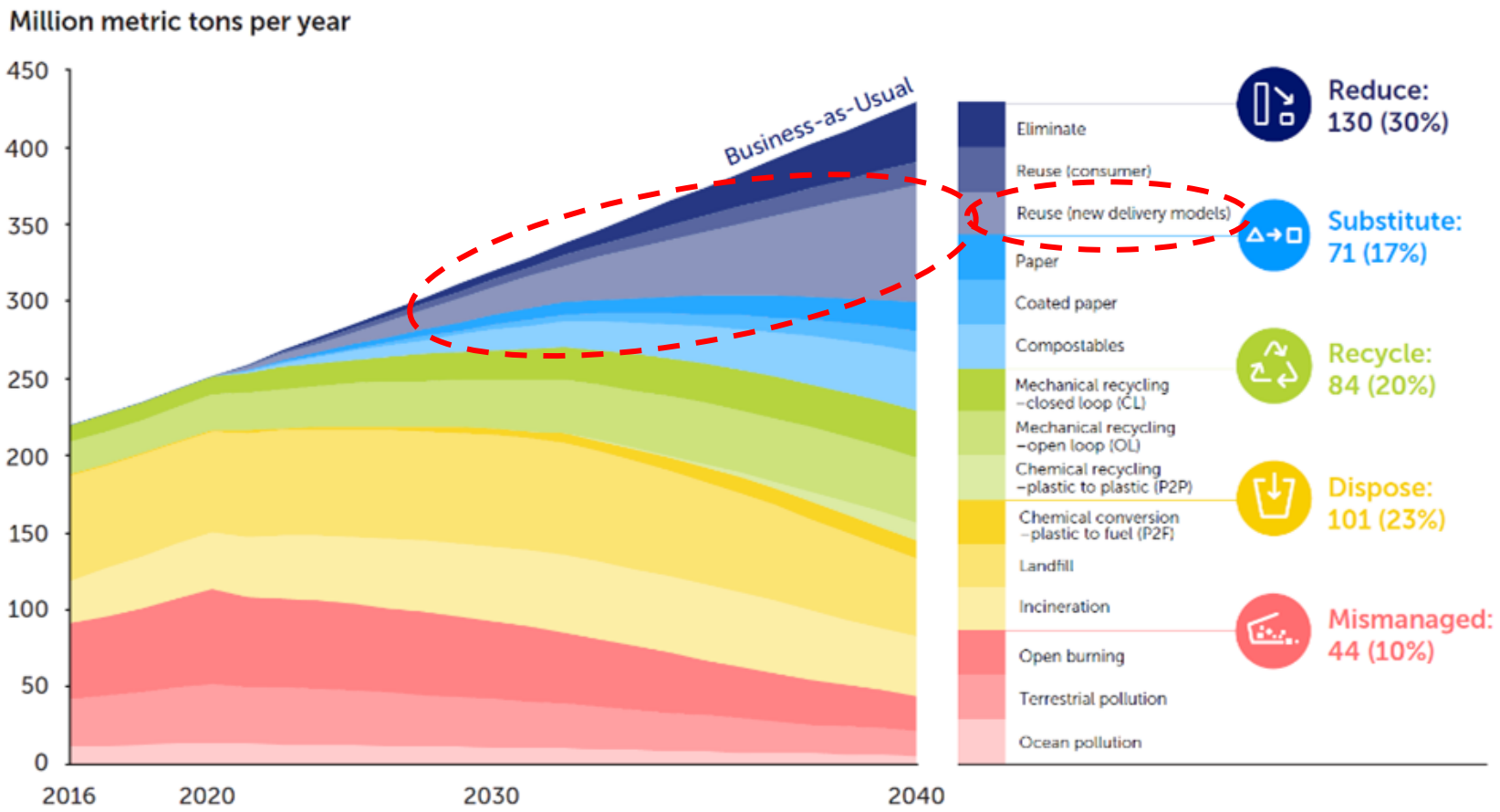
- Pursue systematic-scale reuse / waste prevention initiatives
- Implement less-formal opt-in, voluntary reuse / waste prevention opportunities
- Watch and wait, consider for the long-term
- Not an organizational priority
- Other *(share details in chat)*
- N/A – doesn't apply

PERPETUAL

Partnering at the city level to design and support reuse system implementation —
starting with foodware

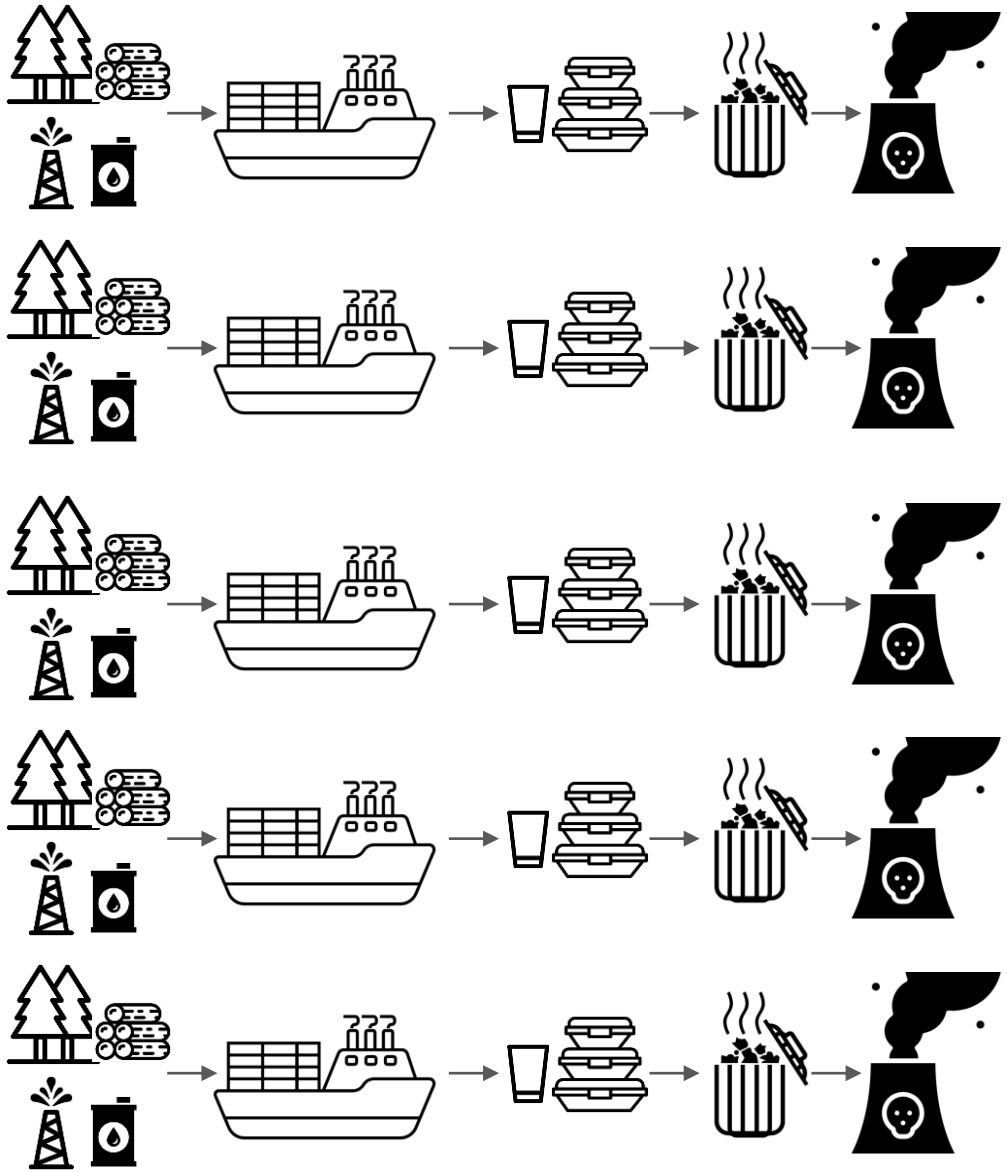
ABOUT

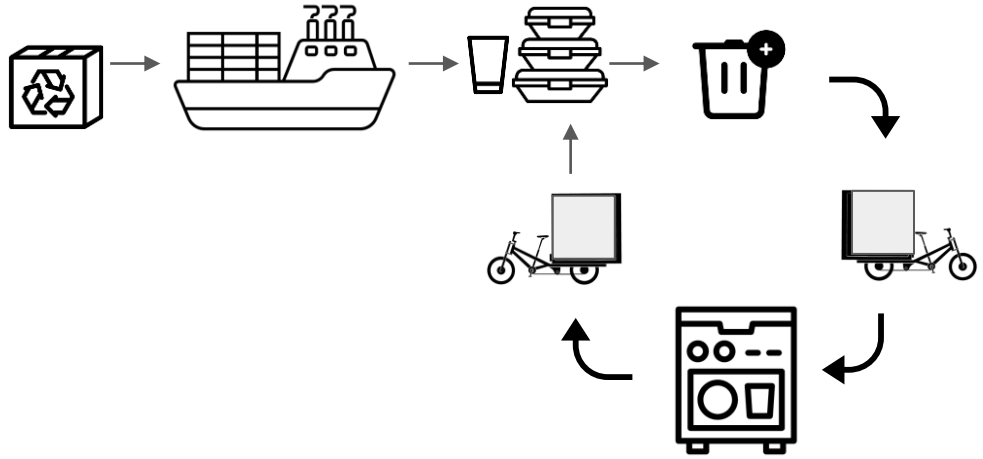
Reuse is a critical solution to plastic waste and pollution



This "wedges" figure shows the share of treatment options for the plastic that enters the system over time under the System Change Scenario. Any plastic that enters the system has a single fate, or a single "wedge." The numbers include macroplastic and microplastic.

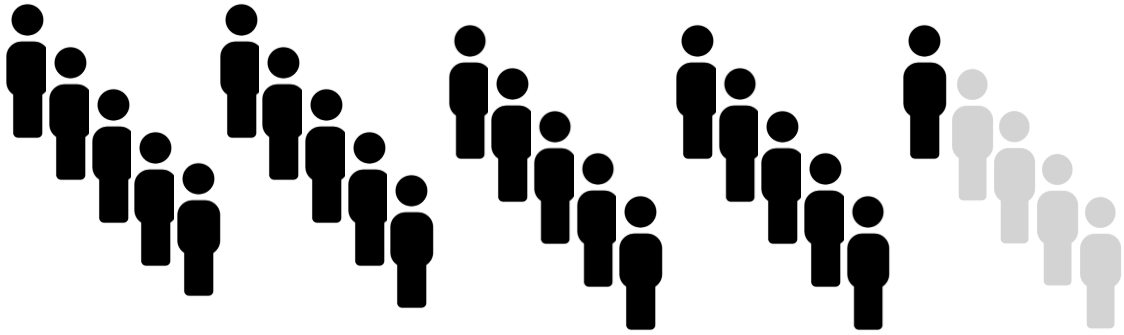
Reuse is the largest lever for reducing plastic waste and pollution





Reuse simply makes more sense than ‘disposable’

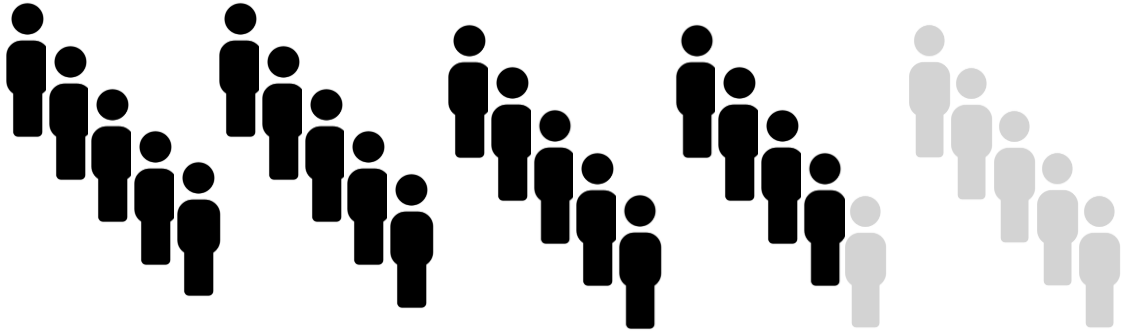
Americans want alternatives to single use packaging



84%

of U.S. shoppers are concerned about plastic and packaging waste.

(Newsweek)



76%

of people want to make their vacation travel sustainable

(Booking.com)

Reusable Foodware Programs in US & Europe

BOLD REUSE

- 100+ restaurants, food carts, & grocery stores across Portland, Seattle Park City, Bentonville
- Partnering with Loop, Kroger, Starbucks on their reusable pilot for collection and washing

RECUP REBOWL

- Offered at 21,100 restaurants, cafes, and corporate cafeterias in Germany
- A RECUP replaces up to 1,000 disposable cups in the course of its life

deliver zero

- 150 restaurants in Brooklyn, Manhattan and Queens
- “Restaurants save over 40% on packaging costs for every order that’s fulfilled in our reusable containers.”

re CIRCLE

- 1,800 restaurants in Switzerland and 600 in Europe
- Operates programs for restaurants/cafes, corporates, and schools, replacing 69,000 disposable foodware items daily

Open Loop Reusable Cup / Container Programs

Europe, by country		U.S., by state	
Austria	2	California	10
Belgium	5	Colorado	2
Croatia	1	Hawai'i	2
Estonia	2	Illinois	1
France	10	Massachusetts	2
Germany	9	Michigan	1
Ireland	1	Minnesota	2
Italy	1	New Jersey	1
Luxembourg	1	New York	4
Netherlands	5	North Carolina	1
Spain	4	Oregon	3
Sweden	1	Pennsylvania	1
Switzerland	1	Rhode Island	1
Ukraine	2	Texas	1
United Kingdom	11	Washington	2
Grand Total	56	Grand Total	34

Example: Bold Reuse, USA

Currently operating in four U.S. cities - Bentonville, AR, Park City, UT, Portland, OR, and Seattle, WA

https://www.boldreuse.com/

Example: Dispatch Goods, USA

Saved over 1,304,325 single-use items from entering the waste stream

https://dispatchgoods.com/

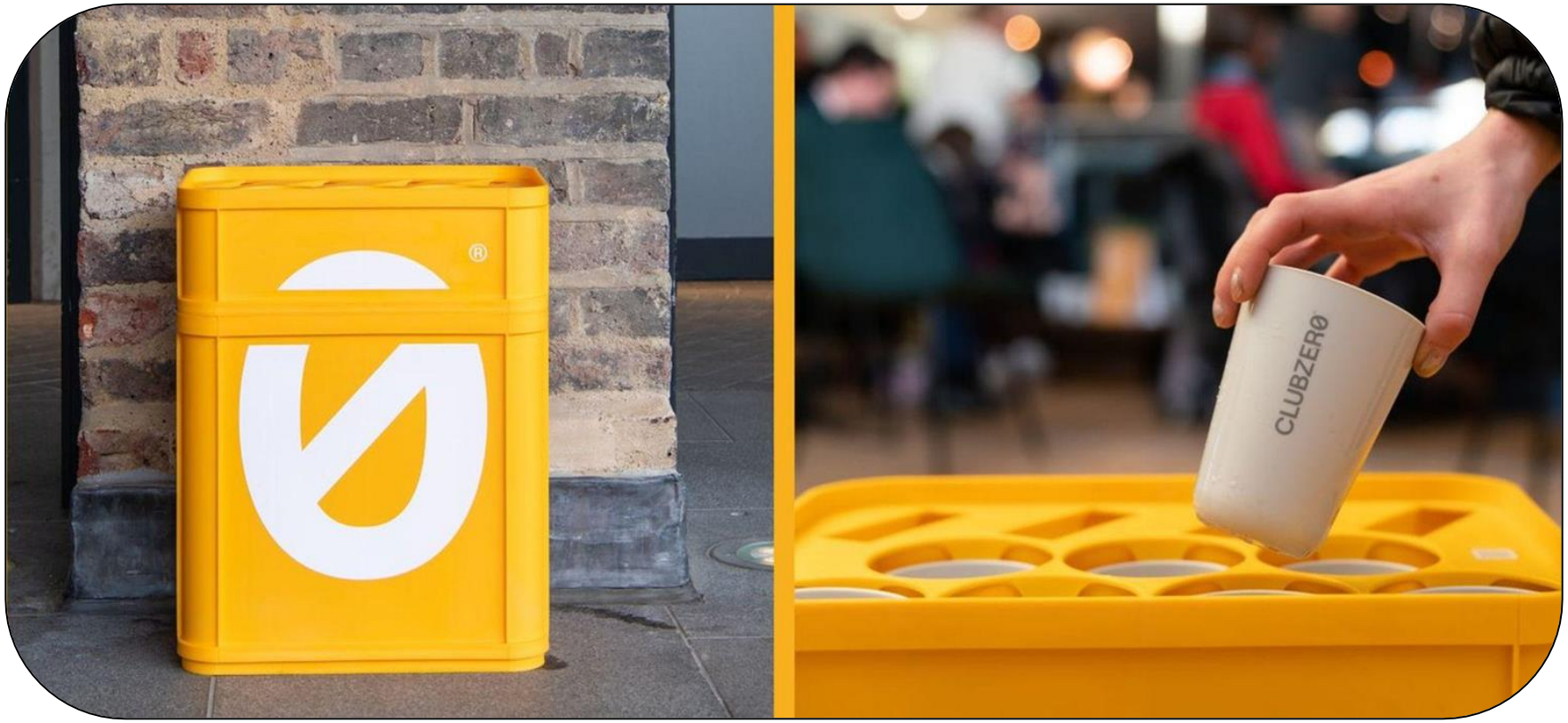
Example: RECUP & REBOWL, Germany

https://recup.de/

Partnered to offer reusables in Burger King locations across Germany

Example: CLUBZERØ, UK

- Eliminated 2.2M single-use items
- Saved 68 metric tons of CO2



https://www.clubzero.co

Example: DeliverZero, NYC

80+ restaurant partners in New York City

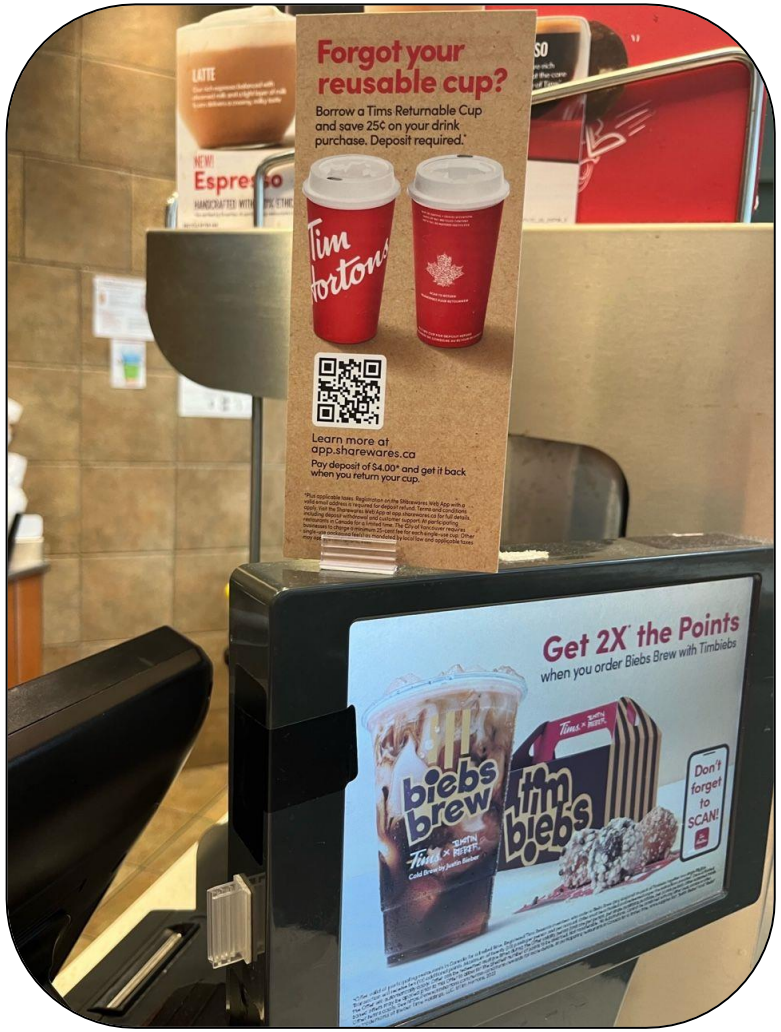
www.deliverzero.com/

Example: Vytal, Germany

Available at over 3500 locations throughout Germany with over 330,000 users

https://en.vytal.org

Example: Tim Hortons, ShareWares, and City of Vancouver



www.sharewares.ca

Example: Music venues, r.Cup, and Seattle

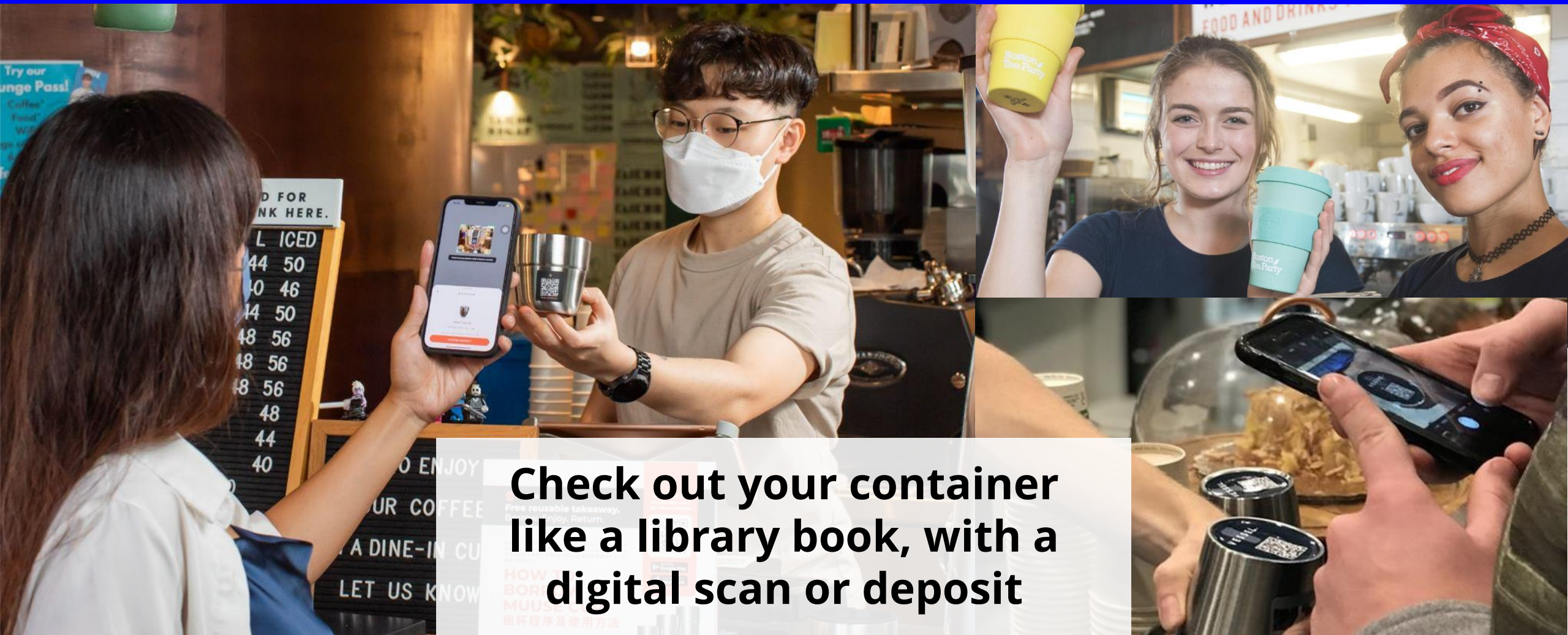
r.Cup is bringing reusable cups to music venues and events across Seattle

https://rcup.com/

How It Works

SPOT THE REUSABLE !

CHECK OUT A CONTAINER

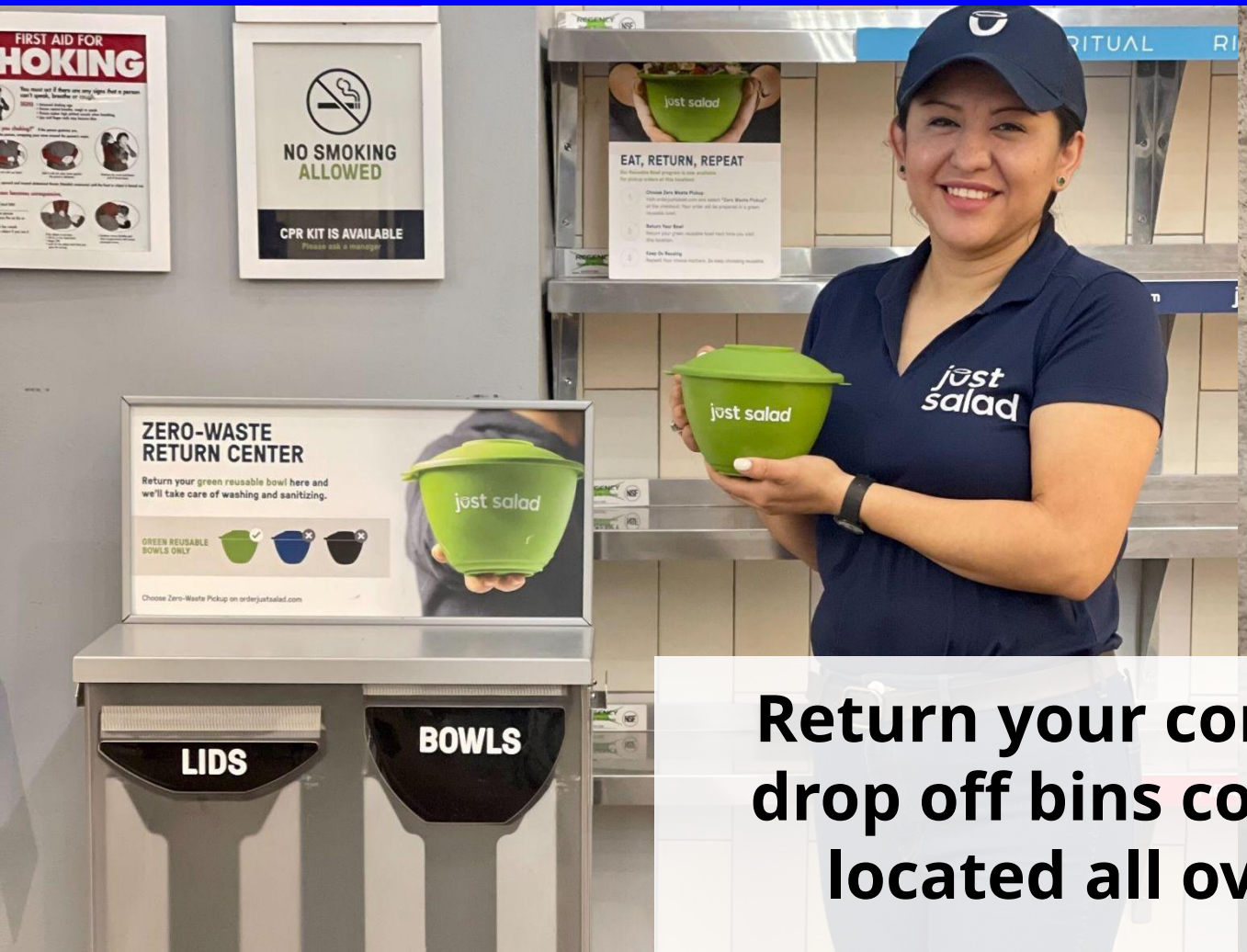


Check out your container like a library book, with a digital scan or deposit

ENJOY YOUR FOOD & DRINK!

Receive your food and drink in reusable containers and enjoy anywhere!

DROP OFF YOUR CONTAINER



Return your containers to drop off bins conveniently located all over town!

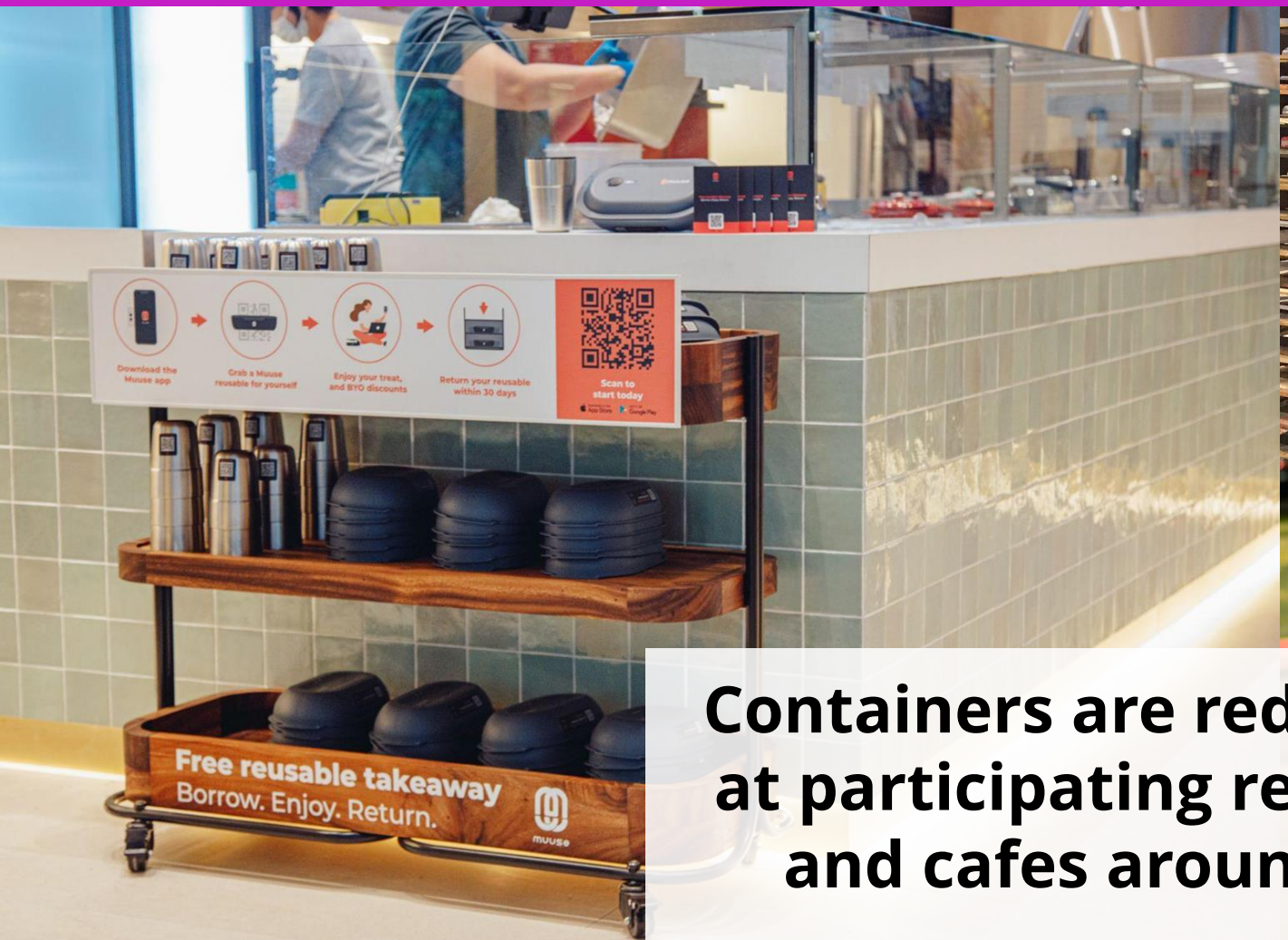
CONTAINERS ARE COLLECTED

Containers are collected and transported to a cleaning facility in town

CONTAINERS ARE WASHED

Containers are washed and sanitized in a commercial health dept approved facility

CONTAINERS REDISTRIBUTED

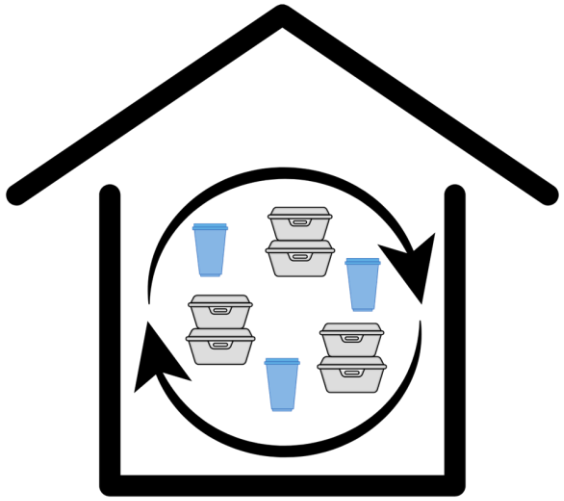


Containers are redistributed at participating restaurants and cafes around town!

Reusable foodware is happening - but at small scale

Closed Loop:

Reusable items circulate within a single location



Status today:

Success stories at institutional and event scale

Examples:

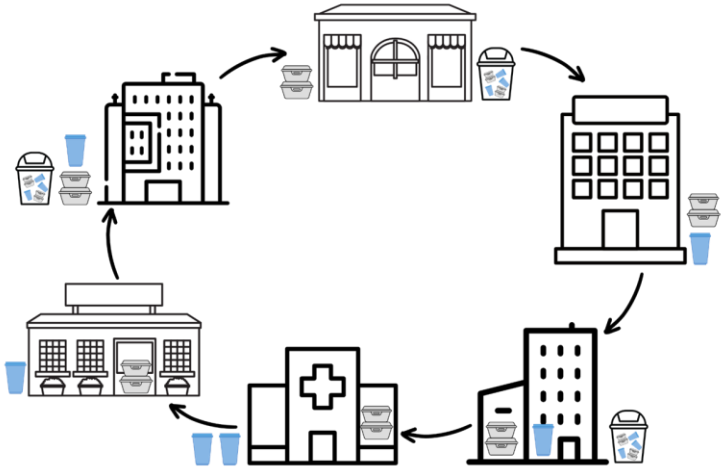
CupUp cups have been used by >250,000 at festivals, sporting events & corporate campuses

OZZI works across universities and corporate cafeterias; has averted ~25M disposables

Re:Dish can wash 100,000 containers every 8 hours

Open Loop:

Reusable items circulate within a neighborhood or city



Status today:

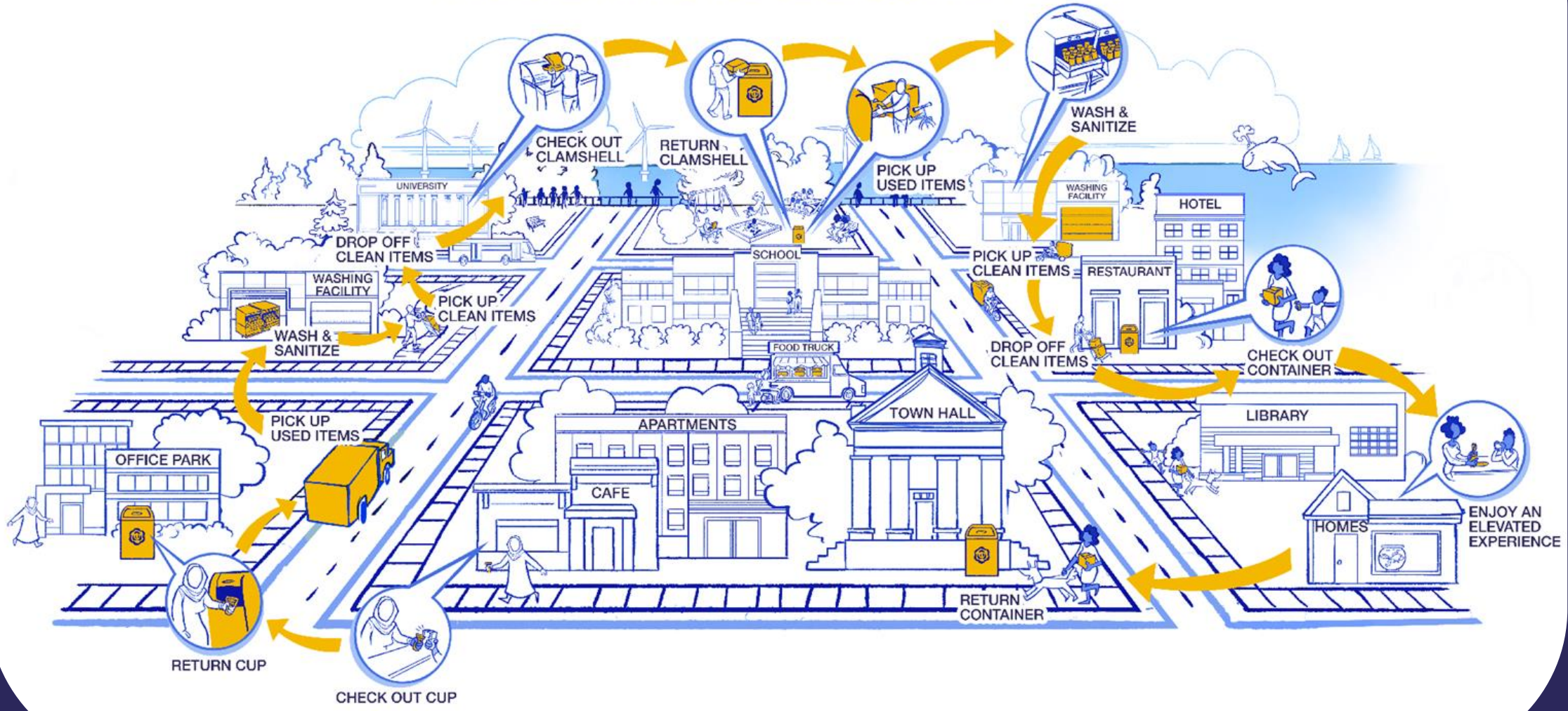
75+ programs in US & Europe currently, proven tech for tracking, logistics, washing

Examples:

Dispatch Goods processes 10,000+ items/week; >50 customers including DoorDash, Imperfect Foods, and restaurants

130,000 Freiburg Cups (now RECUP) were put into circulation in the city of Freiburg, Germany, saving an estimated one million disposable cups

THE REUSABLE FOODWARE ECOSYSTEM



Successful reuse systems have many benefits

Economy

- Comparable cost for businesses
- Reduced sourcing risk for businesses
- Money stays in local community
- Less waste for city to manage

People

- Better eating and drinking experience
- Reduced exposure to chemicals of concern
- Good local jobs
- Income source for collectors
- Point of community connection

Environment

- Less litter/pollution
- Reductions in net GHG emissions
- Reductions in toxic emissions associated with extraction, transport & manufacturing of single-use items

Reusable Foodware's Circular Journey

Check out

Reusables are cost neutral to customers as long as they return them

Return to bin

Return bins are conveniently located all around town so that returning something is almost as easy as throwing it in the trash

Transport to hub

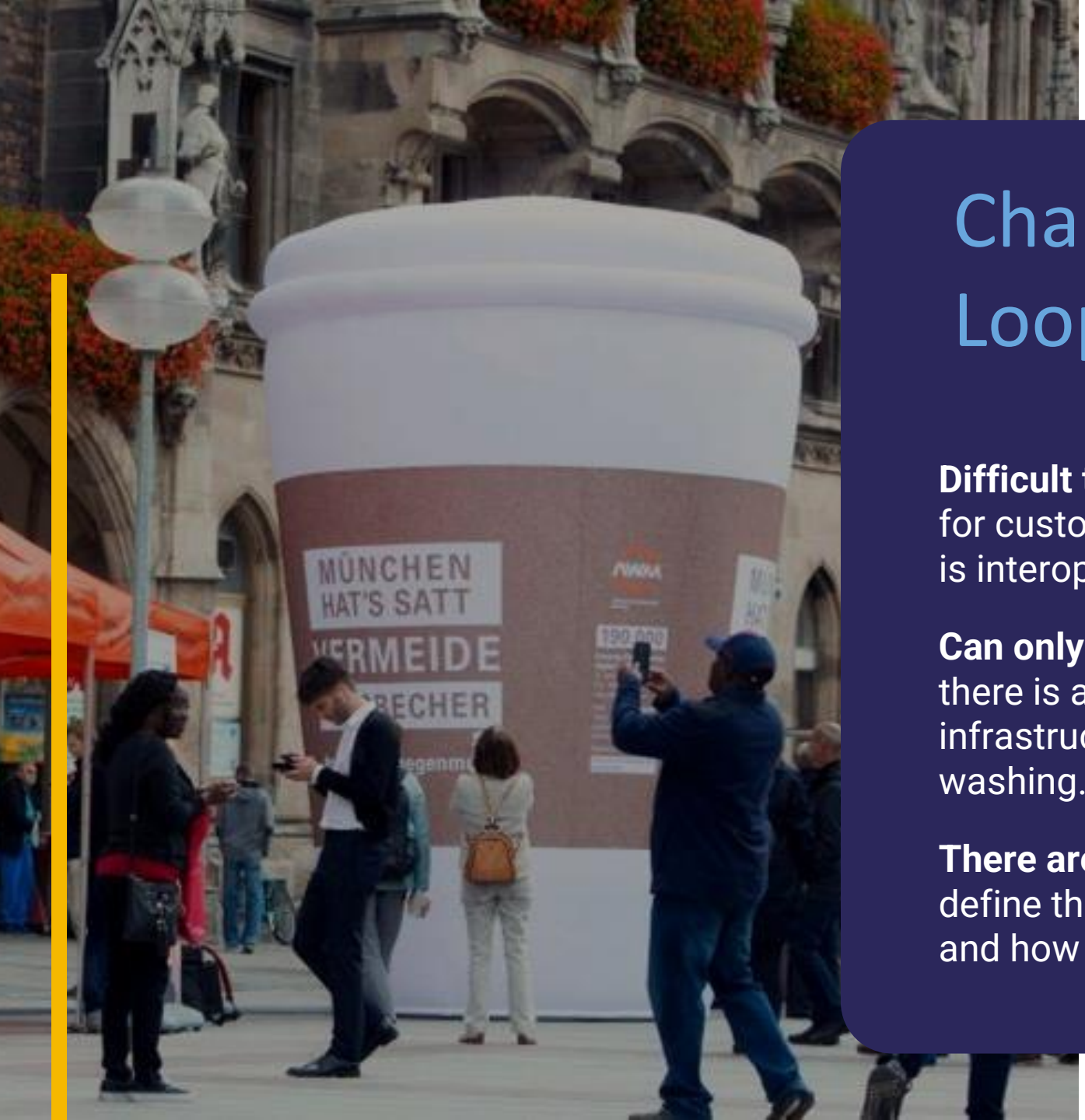
Collection, cleaning and redistribution provide good local jobs

Wash & dry hub

At a centralized washing facility, staff clean, sanitize, inspect and repack reusable items

Redistribute

Businesses only pay a low per-use fee for each reusable they provide to a customer

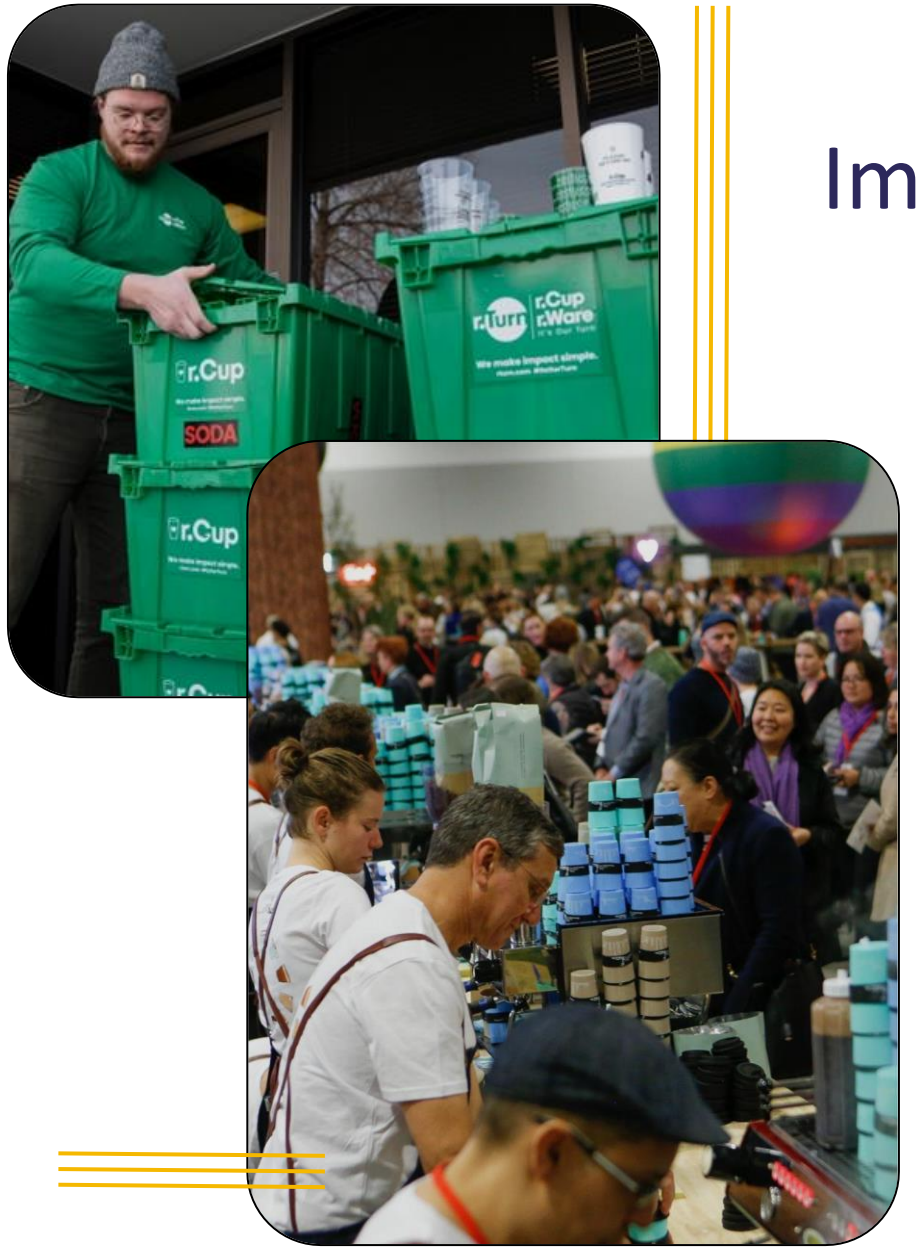


Challenges for Open Loop Reuse Systems

Difficult to achieve convenience & affordability for customers and businesses unless the system is interoperable across a geographic area.

Can only unlock environmental benefits when there is a holistic design with shared infrastructure, high return rates and efficient washing.

There are no established governance models to define the roles cities and service providers play and how they work together.



Immersive Scale is Key

Reuse works best when the whole ecosystem is in place

- Many - ideally most - restaurants offer at least one reusable item, ideally as the default option
- Collection bins, washing infrastructure and logistics in place
- Clear and consistent signage and behavioral cues for users
- High volumes of items keep per use costs low and reduce environmental impacts of system

Our design system criteria

ECONOMIC VIABILITY

- Cost neutral to users
- Comparable to cost of disposables for businesses
- Self-sustaining program

ENVIRONMENTAL VIABILITY

- Minimize GHG impact
- High efficiency washing
- High return rates

TECHNICAL VIABILITY

- Safe containers / cups
- High quality assurance washing systems
- Well managed operations

SOCIAL VIABILITY

- Design system for everyone
- Options to use without a smartphone, credit card, or bank account

Perpetual's role in the process

Support cities, community groups and members, and businesses to design the reuse system that will work best for them using a community-driven design process.

Bring technical expertise to optimize reuse system design.

Mobilize funding for infrastructure and transition costs.

Facilitate the selection of reuse service providers to play a role in operating the system.

Provide on-the-ground support for system set up and launch.

Share best practices and provide tools and templates for other communities to guide the creation of their own systems.

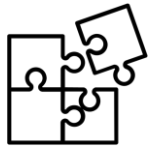
Our approach

MAPPING & ENGAGEMENT

Is there interest?

Local partners

Circularity Assessment Protocol



DESIGN PHASE

Community Design Workshops

Identify community assets

Life Cycle Assessment

SYSTEM SETUP

Establish local entity

Secure providers, equipment, space, permits

Enroll businesses

PRE-LAUNCH

Outreach and education campaigns

Install and test all equipment

Get ready!

LAUNCH

All systems go!

Lots of hands-on support for first several weeks +

SYSTEM IMPROVEMENTS

Monitor system performance

Make changes to help the system work better and better over time

Participatory Design Workshops Galveston, TX.

Our collaboration model

WORKING ACROSS CITIES

Perpetual
Project management
Technical & system design expertise
Cross-city learning group

Academic Partners
Circular Assessment Protocol
LCA parametric modeling
GIS volume modeling & optimization

Corporate Partners
Engage in design process
Share data on packaging volume & packaging assortment

Behavioral Science Advisors
Education & communication expertise
Messaging campaigns

WITHIN EACH CITY

Lead Local Partner
Main point of contact in community
Business engagement
Volunteer management

City Governments
Champion the program & build support
Inform governance model
Potential to invest in / own infrastructure

Reuse Service Providers (TBD)
Assets & asset management
Washing & sortation
Forward/reverse logistics

Our Partners

Local Partners

ZERO WASTE HAWAI'I ISLAND

RECYCLE ANN ARBOR EST. 1977 COMMITTED TO COMMUNITY AND ENVIRONMENT

A2ZERO EQUITABLE • SUSTAINABLE • TRANSFORMATIVE

ZEROWASTE.ORG

TURTLE ISLAND RESTORATION NETWORK

Academic Partners

THE CIRCULARITY INFORMATICS LAB
At the University of Georgia | Jambeck Research Group

THE UNIVERSITY OF CHICAGO DATA SCIENCE INSTITUTE

CENTER FOR SUSTAINABLE SYSTEMS UNIVERSITY OF MICHIGAN

SCAD
The University for Creative Careers

Program Partners

U.S. EPA TRASH FREE WATERS

RESOLVE PR3 Partnership to Reuse, Refill, Replace Single-Use Packaging

UNIVERSITY OF GEORGIA

DR. JENNA JAMBECK

The Circularity Assessment Protocol (CAP)

- Partnering with Perpetual to **complete a CAP in each community** before and after implementation of reusable foodware system.
- Hub and spoke model that provides a snapshot of a city's circularity that can **provide data for regional decision-making** to reduce leakage of waste (e.g. single-use plastic) into the environment and increase circular materials management.

UNIVERSITY OF MICHIGAN

DR. GREGORY A. KEOLEIAN

Takeout Container Parametric LCA Model

- Partnering with Perpetual to **use LCA model and input** appropriate parameters based on community conditions.
- Parametric model to **compare single-use and reusable container systems.**
- Scenario analysis that allows for the **assessment of multiple parameters in the system** including use of transportation, washing, electricity grid, and end of life.

GALVESTON, TX

THE UNIVERSITY OF CHICAGO
DATA SCIENCE INSTITUTE

Data science — ecosystem mapping & volume modeling

Rahim Rasool and a group of data science students are completing city ecosystem mapping for each city, which will be used for volume modeling and optimizing reuse asset placement and collection routes.

Technical support resources

Perpetual and our partners bring the capacity to get the details right

- Financial modeling
- Governance
- Corporate design requirements
- Life Cycle Assessment modeling
- Behavioral psychology to inform system design and messaging
- Assessment of human health impacts
- Geospatial optimization for asset placement and routing for forward and reverse logistics
- Landscape of capabilities: current state of the art on equipment, technology, and reusable items

Our first four partner cities

Ann Arbor, MI

Population: 122,000
Food Service Establishments: 400+
Local Water Bodies: Huron River, the most microplastic-polluted tributary to the Great Lakes
Other Commitments: 2030 Climate Neutrality Plan, which includes reuse of materials as a strategy.

Savannah/Chatham Cty

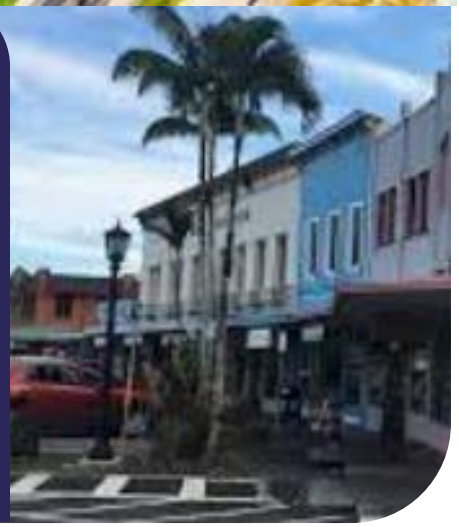
Population: 147,000
Food Service Establishments: 600+
Local Water Bodies: Atlantic Ocean and located adjacent to Gray's Reef National Marine Sanctuary
Other Commitments: City Council passed resolution to phase out single use plastics including plastic cups, utensils, and EPS takeout containers. (2021)

Galveston, TX

Population: 53,000
Food Service Establishments: 200+
Local Water Bodies: Gulf of Mexico and the base for the Flower Garden Banks National Marine Sanctuary
Other Commitments: 2020 Galveston Bay Watershed Aquatic Action Plan, which includes reducing single use plastic.

Hilo, HI

Population: 44,000
Food Service Establishments: 200+
Local water bodies: Pacific Ocean and near the Papahānaumokuākea Marine National Monument
Other commitments: Hawai'i nearly passed an Extended Producer Responsibility bill that would fund reuse infrastructure. (2022)



TEAM

Perpetual Team

ELLIE MOSS

Co-Founder & Co-Executive Director

Lead author of Sea of Opportunity, The Dirty Truth about Disposable Foodware and Reducing Plastic Pollution: Campaigns That Work, and led the work to create the Living Landscape of Reusable Solutions

DR. DAGNY TUCKER

Co-Founder & Co-Executive Director

Started Vessel Works and Vessel Revolution, Inc., experience implemented systems from design to forward and reverse logistics, asset management, IoT technology, distribution, health and safety, point-of return, and LCA analysis

MARTY MILES

Galveston Business Engagement Manager

Seasoned hospitality corporate executive, Hotel and Resort multi-unit operator, owner of small businesses and committed to successful implementation of city wide reusable foodware in Galveston Texas.

AUTUMN BUFORD

Circular Systems Specialist

Reuse Funding Research project lead researcher, internal guidance document for the Reusable Packaging Association on reusable transport packaging in ESG frameworks

CALISTA MILLS

Physical Scientist

Guest team member from the US Environmental Protection Agency (EPA) Gulf of Mexico Division

ZIYU REN

Data Science Intern

Undergrad at UChicago, experience in geospatial data science for city-wide reuse systems, large-scale behavioral change researcher

TEAM

Our advisors

KATE DALY
Closed Loop Partners

TIM DEBUS
Reusable Packaging Association

NATALIE J. HALLINGER, PHD.
Walgreens Boots Alliance

JENNA JAMBECK, PHD.
University of Georgia College of Engineering

DANIEL KATZ
The Overbrook Foundation

CHRISTIAN KAUFHOLZ
World Economic Forum

JULIA KOSKELLA
SYSTEMIQ Ltd.

AMY LARKIN
PR3

JANE MUNCKE, PHD.
Food Packaging Forum Foundation

CRYSTAL DREISBACH
Upstream

SARA WINGSTRAND
BCG

Engage with us

perpetualuse.org

@perpetualuse

Reach out at hello@perpetualuse.org

Thank you!

Live Poll #3

Where reuse or prevention programs are in place, what effort is made to track impact data? *(Ignore if doesn't apply to you)*

- Track # of uses / avoided use by unit
- Track approximate weight of avoided waste
- Track approximate cost avoidance
- Shoot from hip guesstimate - weight of avoided waste
- Shoot from hip guesstimate - cost avoidance
- Have interest, but no system to track
- Not a priority
- Other *(share details in chat)*

Upstream

We heart reuse.

September 2023

Making the Case for Reuse and Waste Prevention

The Throw-Away Economy

...is used to make single-use packaging.

Upstream

The problem isn't just single-use plastic.

It's "single-use" itself.

"We're never going to be able to recycle or compost our way to a sustainable future. We have to **work upstream to redesign the systems** generating all the waste in the first place."

- Upstream Founder Bill Sheehan, Ph.D.

Upstream

Reuse Wins

- If plastic production and use continue to grow as planned, emissions could reach *1.34 gigatons per year by 2030* – equivalent to emissions from more than 295 new (500-megawatt) coal-fired plants.
- Reusable food service ware beats single-use alternatives on **every environmental measure** (climate, water, land use, waste, pollution, etc.).
- Over their life-cycle, reusables have **lower greenhouse gas emissions** compared to disposable alternatives - even recyclables and compostables.
- Reuse helps **reduce overall pollution, chemical exposure, and litter**.
- Reuse services create **good, green, local jobs.**

Upstream's Vision & Role

30% of consumable goods sold in reusable formats in the U.S. and Canada by 2030.

Spark innovative solutions to plastic pollution by helping people, businesses and communities **shift from single-use to reuse.**

We work with all three sectors as:

- Thought Leaders
- Conveners & Bridge-Builders
- Solutions Ideators & Catalysts
- Content Creators & Curators

Platinum Transparency 2022 Candid.

1% FOR THE PLANET

How to get involved

- Join the **Reuse Solutions Network**
  - Government Reuse Forum
  - subcommittees
- Start or join a **local reuse coalition**
- For corporations - join the **Reuse Refill Action Forum**
- Utilize **Chart-Reuse™** to make the case for reuse in food businesses

Reuse Solutions Network

850+

“Reuse Solutioneers” across the U.S. & Canada working to build and scale reuse through policy, business innovation, and community action.

Membership:

- NGOs
- Reuse entrepreneurs
- Government agencies & elected officials
- Community leaders

Reuse Solutions Network
Subgroups

- **Government Reuse Forum**
  - **250+ members**
  - local, state / provincial, and federal government staff and elected officials
- **Subcommittees**
  - topic-specific workstreams

Reuse Coalition Leadership Network

Today in US & Canada:

20+ Reuse Coalitions

catalyzing community-scale reuse

Austin Reuse Coalition · Central Ohio Reuse Coalition · Clean Air Baltimore · Reusable Burbank · Reusable Hawai'i · ReusableLA · Reusable Mill Valley · Reuse Minnesota · Reuse Portland (ME) · Reusable New England · ReusableNYC · Reusable Reno · ReusableSF · Reusable San Mateo · Reuse Seattle · Reusable Sonoma · Reusable Toronto · Reusable Truckee · St. Louis Reuse Coalition · Zero Waste Ithaca

Upstream

Reuse Refill Action Forum

Serving leaders from food service, beverage, CPG and retail brands

A pre-competitive space for the food service, beverage and consumer packaged goods sectors to:

- identify barriers to reuse
- identify reuse solutions and
- develop scalable reuse projects

Upstream

MERIDIAN INSTITUTE®

OCEAN PLASTICS LEADERSHIP NETWORK

Chart-Reuse

What is Chart-Reuse™?

The industry's first foodware reuse analytics platform

- **Food packaging waste data tracked & analyzed** - full visibility into packaging waste stream
- **Data driven insights and decision making -** environmental (waste & ghg) and cost impacts (ROI & annual savings)
- **Analytics portal** + personalized **coaching** support
- New **metrics** support business sustainability goals and reporting
- **Communications and marketing** - B2B & B2C promotion of accomplishments, plus earned/owned media

Chart-Reuse

Why Chart-Reuse?™

To help the food service sector shift from single-use to reuse.

- Reimagined “boots-on-the ground approach”
- GOAL - make the shift from single-use to reuse much easier.
- Standardize environmental and economic data for internal use
- Allows companies to manage, monitor and communicate their shift to reuse
- Make the case for reuse across North America.
- Can be utilized by food service companies, reuse coalition or grassroots groups, reuse service providers, NGOs & governments

Resources for Building Reuse Communities

Reports

- Reuse Wins
- Reuse Wins at Events
- The Reuse Policy Playbook
- The New Reuse Economy

Additional Resources

- Policy Tracker
- Reuse Business Directory
- Roadmap to Reuse
- Model Policies
- The Connection Between Reuse & Climate

Podcasts: Join us for the Indisposable Podcast which celebrates cutting edge solutions plastic pollution and reuse communities and features heros of the reuse movement.

Blogs & Vlogs: At Upstream, we are passionate about sharing a variety of perspectives on reuse and in our blog and vlog series, you can get the wrap on weighty topics in just a few minutes.

Indisposable Live™: Upstream's Livestreams provide a more interactive version of in-depth investigation into the reuse solutions to our plastic pollution and climate crisis. They feature experts and radical thinkers who are helping to build the new reuse economy.

Upstream

Thank you!

Macy Zander
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THE INDISPOSABLE PODCAST

JOIN US by visiting:

upstreamsolutions.org/join

- Reuse Solutions Network
- Reuse/Refill Action Forum
- Community Reuse Coalitions

SIGN UP for a free trial of Chart-Reuse at: chart-reuse.eco

Upstream

Next Up…

Presenters:

-Joanie Burns, *Amgen*

-Raene Barber,
City of Lethbridge, AB

Today's Program Online

- Recording
- Presentation slides
- Links to Resources

Look for email in coming days

Archived Webinar Recordings

-Food organics collections

-Strategic planning

-Special event waste reduction

-Understanding Plastics

+ more

Visit: buschsystems.com/blog

Thank You to Our Panelists

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