



Reduce & Reuse (R&R) Workgroup

Repair Panel Discussion

Virtual Meeting - August 26, 2020

Agenda

11:00 - Welcome &
Background on R&R
Workgroup

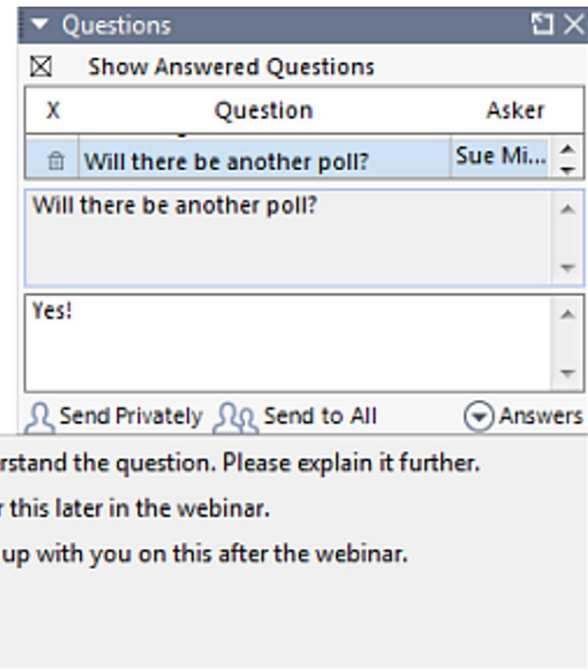
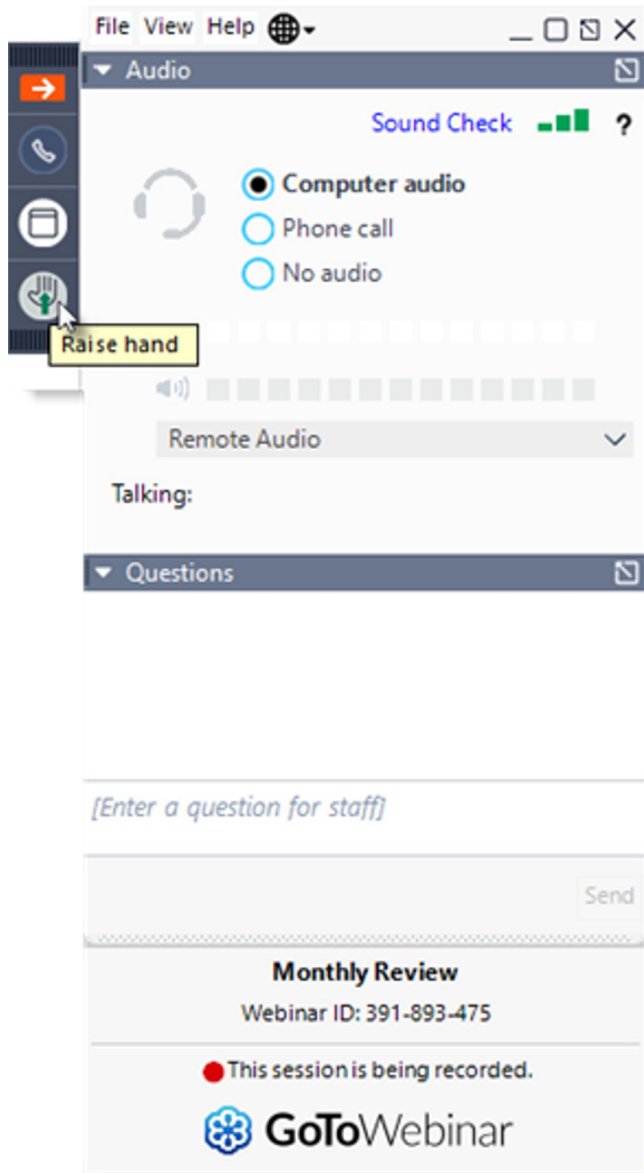
11:15 - Repair Panel
Discussion

12:00 - Q&A with
Panelists

12:30 - Open Dialogue
on Repair

12:55 - Closing Remarks,
Announcements & Next
Meeting Date

1:00 - Adjourn



Participating using GoToWebinar

Solid Waste Master Plan 2030

Public Comment Draft

DRAFT FOR PUBLIC COMMENT

Massachusetts 2030 Solid Waste Master Plan

September 2019



- [Draft Solid Waste Master Plan](#)
 - Source Reduction & Reuse section
 - Includes creating Strategic Reduce and Reuse Action Plan
 - Reduce & Reuse (R&R) Working Group will inform this action plan

Source Reduction and Reuse

Goals:

- Develop and implement expanded strategies to reduce waste at the source.
- Develop and implement policies and programs that extend the lifespan of products through reuse, repair and remanufacturing.

Priority materials: Durable goods including appliances, electronics and furniture, single use packaging and food service products, wasted food, building materials, transportation and distribution packaging

Strategies

Create a Strategic Reduce and Reuse Action Plan that will:

- Assess the best opportunities to increase materials reuse and extend product lifespans.
- Identify barriers and capacity needs among priority industries, including workforce development needs and technical gaps.
- Provide data on the state of reuse activity, economic benefit, materials diversion, and attitudes/behaviors around reuse.
- Create a network of source reduction and reuse industry stakeholders and hold an open

Figure 3.1 Libraries of Things at Peabody Institute Library, Danvers



Organics Action Plan

Reducing Waste and Donating Food

Barrier: Missing Opportunities to Reduce Food Waste and Donate Food

As more and more businesses separate wasted food to be diverted for disposal, it becomes clear that there are opportunities to reduce wasted food to begin with through more efficient food service operations. However, businesses need better information to identify these opportunities. In addition, in some cases, businesses divert food to composting, anaerobic digestion, or animal feed, when that food may still be high quality food that is safe to donate and serve to people. Businesses, food donation organizations, and local health officials need transparent guidance to ensure that this food can be donated safely and effectively.

Actions	Original Target Date	Status
Promote industry best management practices to reduce food waste generation <ul style="list-style-type: none">○ Develop basic guidance on reducing food waste○ Complete survey of colleges & universities on food waste reduction strategies○ Promote and share best practices from survey to increase their adoption	New	Complete Spring 2017
	New	Ongoing
Promote food waste reduction strategies at schools through the Massachusetts Green Team program	New	Ongoing
Create best management practices around food donation, engaging with stakeholders (Health Agents, food donation groups, etc.) <ul style="list-style-type: none">○ Partner with the Harvard Food Law and Policy Clinic to create legal fact sheet on food donation liability	Ongoing	Ongoing
	New	Completed

Single Use Packaging

Building Materials

Textiles & Clothing

Electronics

Household Durable Goods

Organics/Food

Furniture

Revised Workgroup Schedule

- Kickoff Meeting - [March 2020](#)
- Creating a Culture of Reuse in MA - [April 2020](#); [May 2020](#); [July 2020](#)
- Reuse Roundtable: *The Future & Safety of Reuse in MA* - [May 2020](#)
- Household Durable Goods - [May 2020](#); [June 2020](#)
- Repair Panel Discussion - August 2020
- Single Use Packaging & Food Service Products - September 2020
- Used/Surplus Furniture (Commercial/Institutional)
- Electronics
- Textiles & Clothing
- Building Materials
- Transportation & Distribution Packaging

Meet our Repair Experts



Gay Gordon-Byrne
[The Repair Association](#)

✉ : ggbyrne@repair.org



Robin Ingenthron
[Good Point Recycling](#)

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Peter Mui
[FixIt Clinic](#)

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Ray Pfau
[Bolton Repair Cafe](#)

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Maryam Kamangar
[Goodwill Industries of the Berkshires
& Southern Vermont](#)

✉ : mkamangar@goodwill-berkshires.org

1) Tell us more about yourself and your organization. Where are you located? What is your mission? Who do you serve? What is your role in promoting repair?

2) What are the major trends you see happening in your field now? What changes do you think we need to be ready for?

3) What's one thing that your organization has done to promote repair that you are proud of?

What is “Right to Repair” ?

- Gay Gordon-Byrne
- Executive Director,
Digital Right to Repair Coalition
dba The Repair Association
501 C6 non-profit trade association
- Repair.org
- ggbyrne@repair.org

Core: Ownership Rights

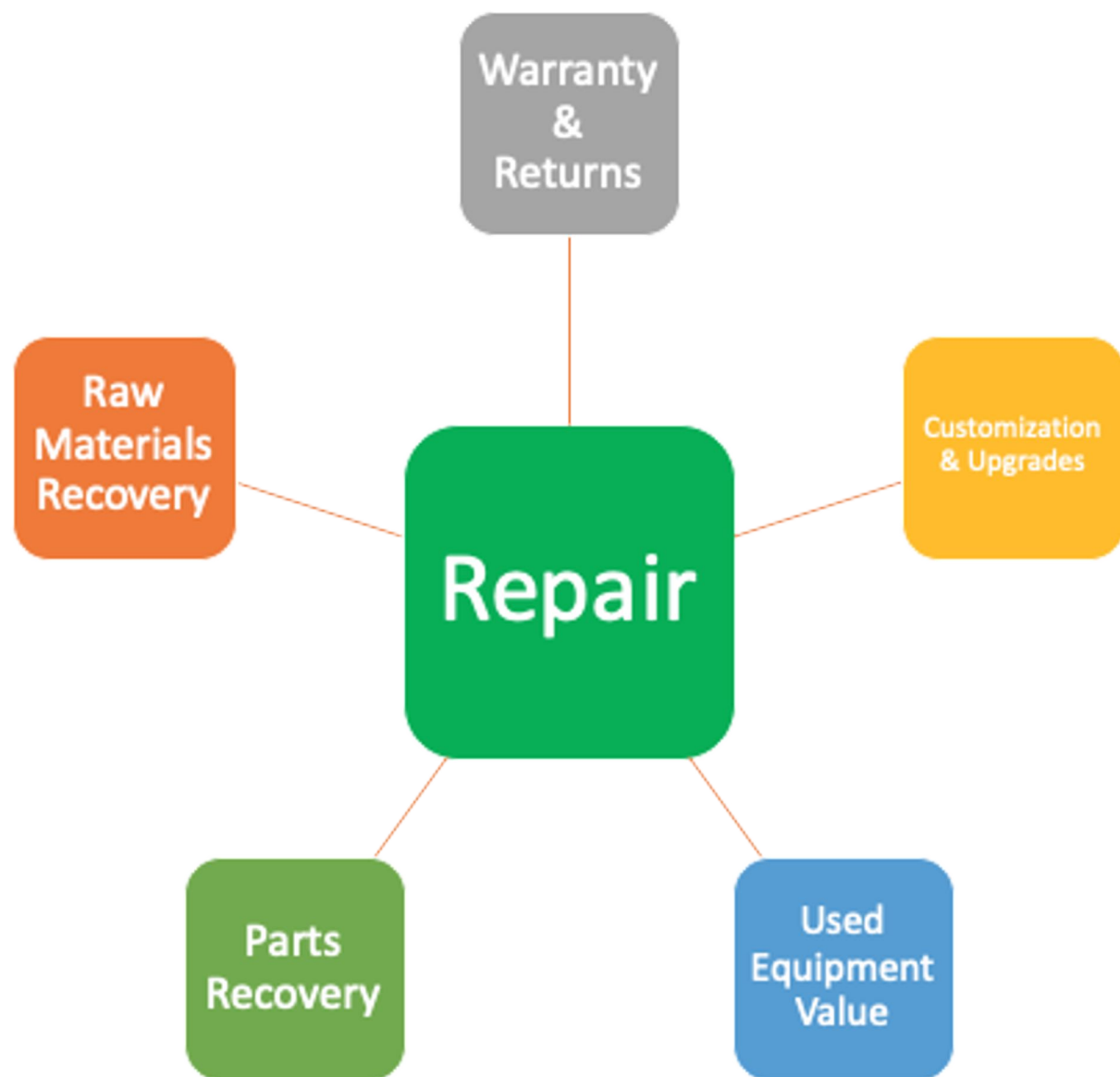
Property

- Patent Law
- Owner Controls
- Unfettered Resale

License

- Copyright Law
- Author Controls
- No resale

Repair is Central to Useful Life



How to Monopolize

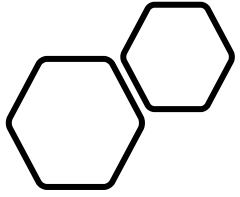
Contractual

- Proprietary Claims
- Tying Agreements
- Unfair and Deceptive EULA
- Magnuson-Moss Violations
- Post-Purchase Requirements

Physical

- Glue and Solder
- Less design for repair
- Paired parts
- Blocked access to parts, tools, firmware, diagnostics, manuals





S.107 H. 218

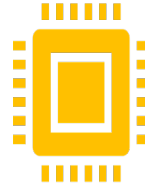
Legislative Requirements: Same As OEM Authorized



Parts & Tools



Service
Documentation &
Schematics



Firmware Patches
& Fixes



Diagnostics

How to Push

Personal Advocacy

- Massachusetts.repair.org

Organizational Advocacy

- Memos of Support to Senator Paul Feeney

Join Repair.Org

- Membership Dues are Tax Deductible Business Expenses



Future-Proof Our Right To Repair

Robin Ingenthron

Goodpointrecycling.net
Brockton, MA and Middlebury, VT

Four Challenges

Four Examples

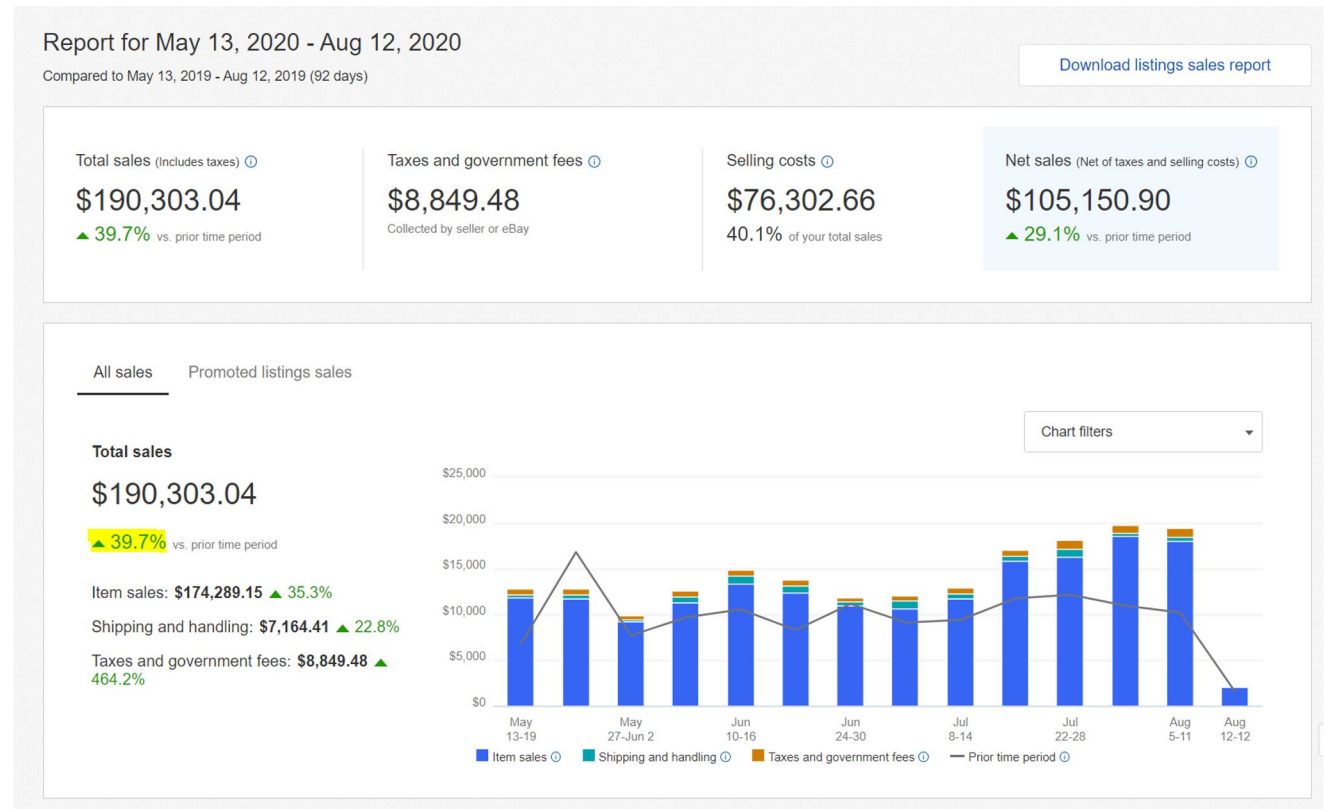
Four Remedies

Future-Proof the Right To Repair

Repair and Reuse Creates Jobs

Sales of Good Point Recycling's tested flat screen TV parts to **USA TV repair shops** is growing fast... 10% per month in 2020.

Project 50 jobs by end of 2020.



What Are The 4 Big Barriers to Increased Reuse?

- **Big Shred**
- **Planned Obsolescence by OEMs**
- **Charitable Industrial Complex**
- **Raw Material Subsidies**

“Big Shred” seeks “Strategic Metals”

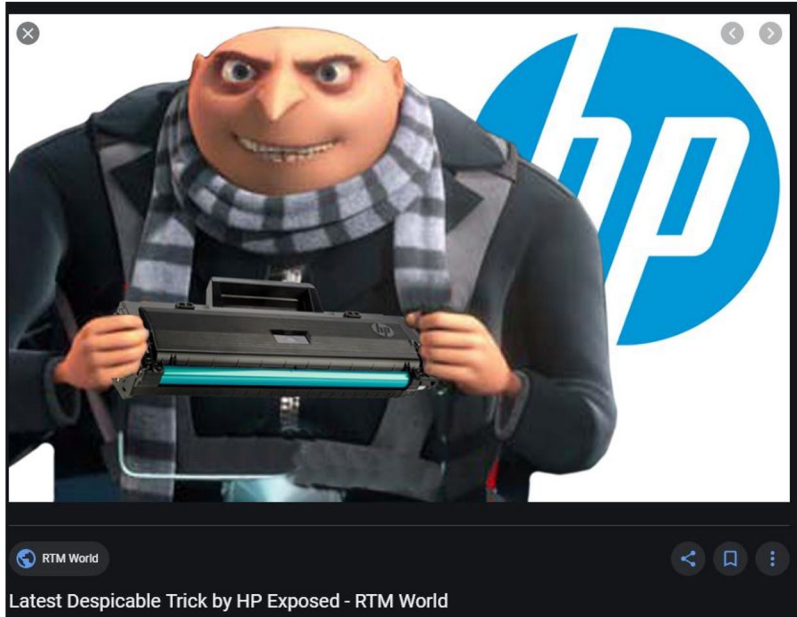


Example: UK’s SWEEP program accused Joe “Hurricane” Benson in 2011 of shipping replaced hotel CRTs for “primitive” dumping, despite Benson’s receipts showing he paid \$10 each, and proof he sent unacceptable ones for recycling in the UK. UK House of Commons Report in 2012 admitted the purpose of the enforcement was to retain “strategic metals and minerals”.

Benson was sentenced to 16 months in prison, even though he demonstrated it was impossible for scrap to pay for his costs of purchase and transport.

([documentary clip](#))

“Planned Obsolescence in Hindsight”



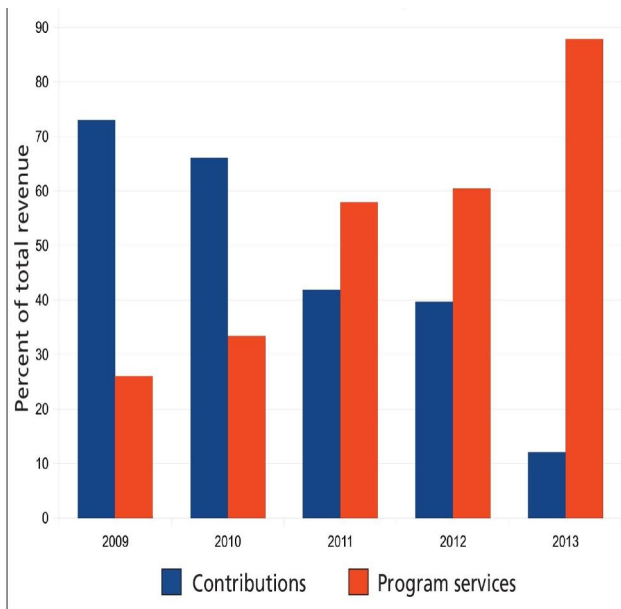
Example: OEM printer companies admit to shareholders that they do not make income on the printers - but **ink and toner cartridges** (which cost about as much to manufacture as a set of ball point pens selling at \$1.99) sell for \$20-30.

In 1998, a spokeswoman for one of the manufacturers labelled refilling as “**Market Cannibalization**”. Her company issued a press release via Anti Gray Market Alliance that the Chinese Government accepted \$6M to go and arrest all the printer repair shops in Foshan.

<https://www.rtmworld.com/news/latest-despicable-trick-by-hp/>

“Charitable Industrial Complex”

Change in NGO Revenue Source



Source Dr. Josh Lepawsky, Memorial U
Analysis of IRS Form 990s

The (now proven false) allegations against the Tech Sector overseas generates millions of dollars per year to fight a claim of “80% Dumping” in the export market. That statistic has now been proven by 8 universities NEVER TO HAVE OCCURRED (Most funding comes from OEMs and Big Shred, per chart).

“They came to my city dump and took pictures of scrap automobiles and young men burning tires, maybe a TV or computer here or there. I guess the NGOs expected Accra’s dump to be filled with banana peels and coconut shells”.

Raw Material Subsidies

The General Mining Act of 1872 leases federal land at \$5 per acre. The land is not owned by the mining company, so the toxic waste is left there for Superfund to clean up.

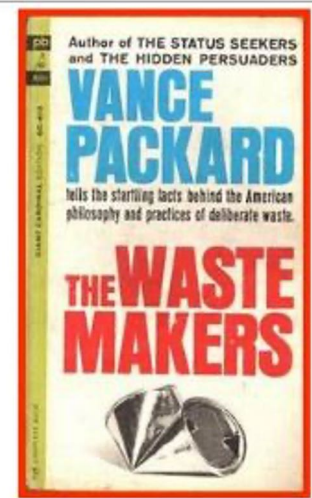


No royalties on the gold, copper, lead etc go to the taxpayers.

Difficult to change, because urban congresspeople don't jockey for positions on the Interior Department Committees, and mining lobbyists run the show.

1950s to 1980s

In 1960, the term “Planned Obsolescence” first appeared in “The Waste Makers”, a bestseller by journalist Vance Packard. In the early 1970s, an activist named Ralph Nader took on Manufacturers for abusing “Warranty” guarantees.

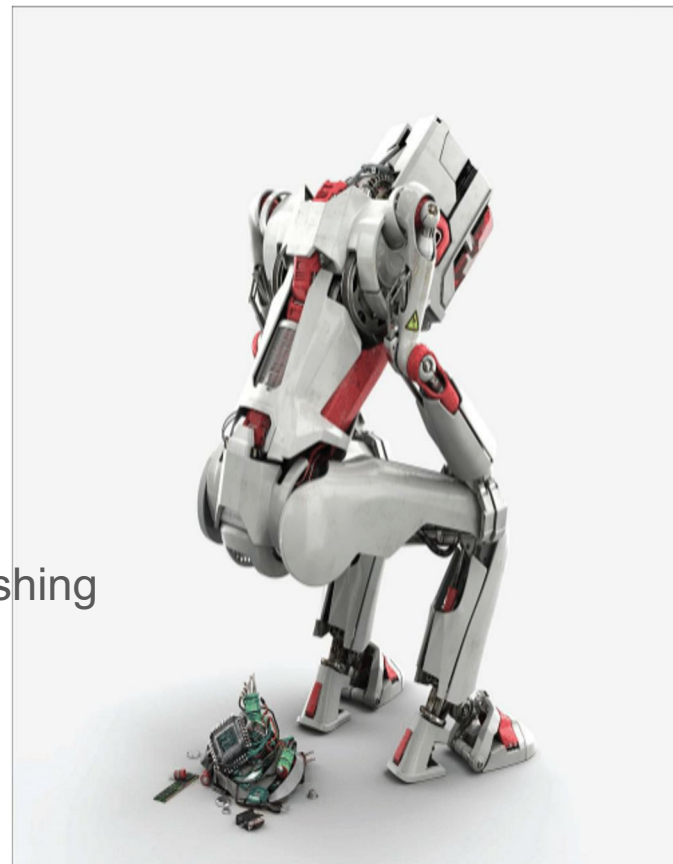


As the “Magnuson-Moss Warranty Federal Trade Commission Improvement Act” was being debated, dozens of industrial lobbyists submitted grave warnings on how consumers would be injured if the FTC was allowed to investigate hanky-panky fine print in warrantee documents.

The MagMoss bill did not so much undo past practices, but set a boundary OEM Legal Departments found not to be worth crossing.

OEMpire Strikes Back 1990-2020

- Branding of repairers as “primitive” and inferior
- “Killer chips” to prevent ink cartridge reuse
- Constant changing of parts and cords
- Firmware “bricking” of devices
- Bribes to foreign governments to stop scaled refurbishing
- Legal cost intimidation of mom and pop resellers



Multiple university researchers, groups like IFIXIT.org and EFF.org, and authors like Dr. Josh Lepawsky and Adam Minter have exposed these “**bully-boy**” practices.

But what can we anticipate in the Future from Planned Obsolescence, Big Shred, and Charity-Industrial Complex?

Eroding First Use Principle

Most simply, USA Legal precedent tells Manufacturers that they have always had the **choice** to LEASE their device and maintain month to month oversight.

But if the OEM gets the money all up front, cost and profit are recovered, and the device is **PROPERTY** of the **CONSUMER**.

But two little companies - Disney and Microsoft - were working on COPYRIGHT LAW. **Today, devices and firmware, patent and trademark, are blending.**



Right To Repair = Future Proofing



- OEMs now fund a GPS tracking program to accuse overseas refurbishers of waste import as soon as a device is brought into a port.
- Technology exists, via RFID chips and blockchains, to prevent “secondhand” parts sales by making every component “sync” to the device serial number.
- Technology may auto-lock (“brick”) devices sold to secondhand and thirdhand consumers.

If you think what anti-reuse did in the past was bad, you ain't seen nothing yet.

Four Steps for Massachusetts

- 1) **Right To Repair Law**, like Magnuson Moss FTC Act, will act as a **red light** (OEMs won't ir✕ **IR TO REPAIR**).



Four Steps for Massachusetts

1) Right to Repair Law

2) **Power of Procurement.** Like mandatory “20% recycled content” in state and federal procurement in the 1990s, States should use the power of computer procurement to “inoculate” computers, requiring friendly blockchain, automated drive-wiping, and “spare tire” operating systems.



Four Steps for Massachusetts



- 1) **Right to Repair Law**
- 2) **Power of Procurement**
- 3) **Fair Trade Recycling Offsets.** We can encourage trade with secondhand and thirdhand markets while being responsible to the environment. The Tech Sector can address concerns about future discards by OFFSETTING their imported purchases with waste diversion. USA Exporters can discount price of exported electronics to motivate Tech Sector to take back old trade-ins, or even collect plastic litter before it washes out to become Ocean Plastic.

The third Step is currently in Fair Trade Recycling's [GOFUNDME](#) beta program. It's a way for your institution or city to up its "recycling" statistics by sponsoring an recycling where its cheaper and easier, but people have less money to spend on it.

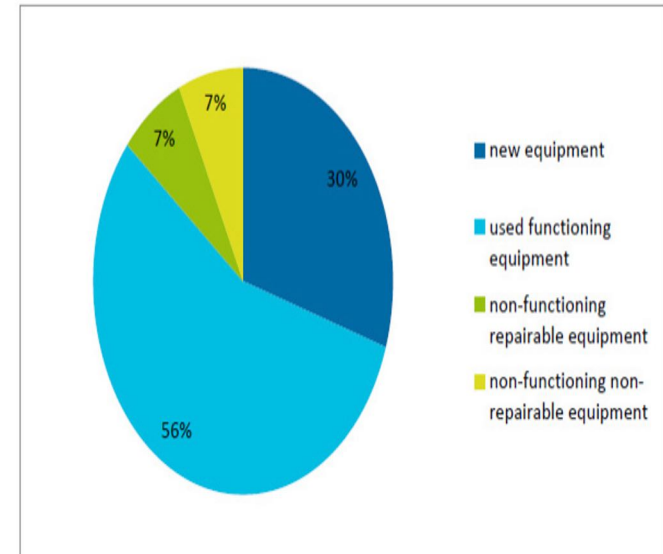
Four Steps for Massachusetts

- 1) **Right to Repair Law**
- 2) **Power of Procurement**
- 3) **Fair Trade Recycling Offsets**
- 4) **Recognize Implicit and Systematic Racial Profiling** of poor and “third world” techs. Cor Tech Sector with tire burners betrays *implicit bias*. Re-defining “waste” (through certifications, contracts, and Convention “guidelines”) without interviewing Geeks of Color is *systemic privilege*.

GOFUNDME beta

Figure 2

Shares of new, used and end-of-life electrical and electronic imported into Ghana in 2009 (weight based).



2011 Study by Basel Convention Secretariat found Ghana e-waste imports at only 7%, part of which were brand new devices (cheaply made, susceptible to current surges, avoided by Africans)

Guiyu, China

Integrated chip sorting and
reuse is not

“Counterfeiting”, and is

Explicitly allowed under

Basel and WTO Rules



North Africa

“Informal Sector”

Remanufacturing of

Desktop monitors into

Small TV-Monitor combos

Is not illegal or wrong



Ghana

Not 'Primitive'

Not 'Boys'

Not Ghoulish

Not Sham

Best job for a

Valedictorian



Foshan, China

When CBS 60 Minutes claimed they “followed the trail” of desktop monitors from Hong Kong port to Guiyu, they were duped. Guiyu is chip harvesting. The factory that originally made them in Foshan was buying them back for remanufacturing.



Today, Original Equipment Manufacturers are Defaming and Profiling AMERICAN repair workers.

Non OEM repair people are called

“Strangers, Hackers and Criminals”

It's your data, help keep it that way.

Massachusetts voters will be asked to respond to a ballot question in November 2020 that risks placing personal data in the hands of hackers, criminals and an unlimited number of strangers. At its core, it would allow remote access to driving data systems exposing sensitive, personal data in real-time.

The Coalition for Safe and Secure Data was formed to stop the misinformation campaign being waged by lobbyists and their national political funders who are determined to undermine existing laws and protections.

[LEARN MORE](#)



 **VOTE NO ON 1**
KEEP YOUR DATA SAFE

Four Steps for Massachusetts to take

- 1) Right to Repair Law
- 2) Power of Procurement
- 3) Fair Trade Recycling Offsets.
- 4) Recognize Implicit and Systematic Racial Profiling



"We are definitely not equals. Our buyers definitely know way more about what they want, and can fix, than I do."

Vermont Recycling CEO



For more
information



Goodpointrecycling.net

FairTradeRecycling.net

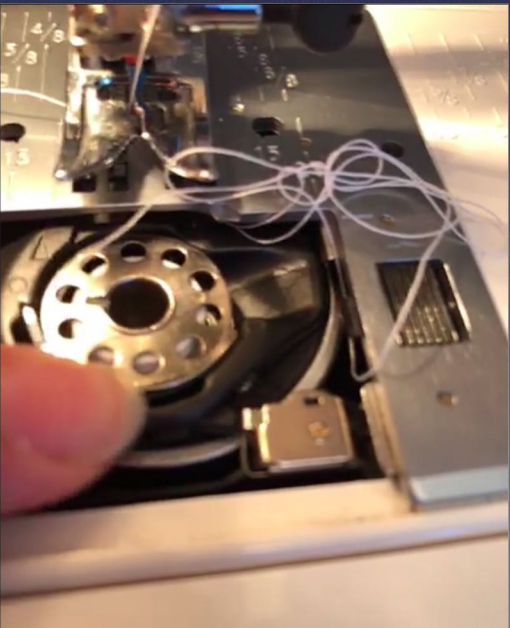
Search [WR3A](#) Playlist (World Reuse, Repair and Recycling Assoc) on Youtube

Robin Ingenthron LinkedIn <https://www.linkedin.com/in/robiningenthron/>

[This Presentation](#) is available for free online.

Extra for Experts

- Write to industry to ask them to stop the name-calling, profiling, and labelling.
- Tell them to stop the GPS/RFID tracking of unwitting and unwilling reuse markets.
- Enlist the ACLU to add GPS and blockchain to their position on RFID tracking.





The New York Times

Here's One Reason the U.S. Military Can't Fix Its Own Equipment

Manufacturers prevent the Department of Defense from repairing their equipment, which puts members of the military at risk



By Elle Ekman Captain Ekman is a logistics officer in the United States Marine Corps.

Nov. 20, 2019

Hospitals Need to Repair Ventilators.

Manufacturers Are Making That Impossible.





Berkeley



Boulder



LUND
UNIVERSITY



Welcome



Together, we recycled over 7 million pounds of car seats.

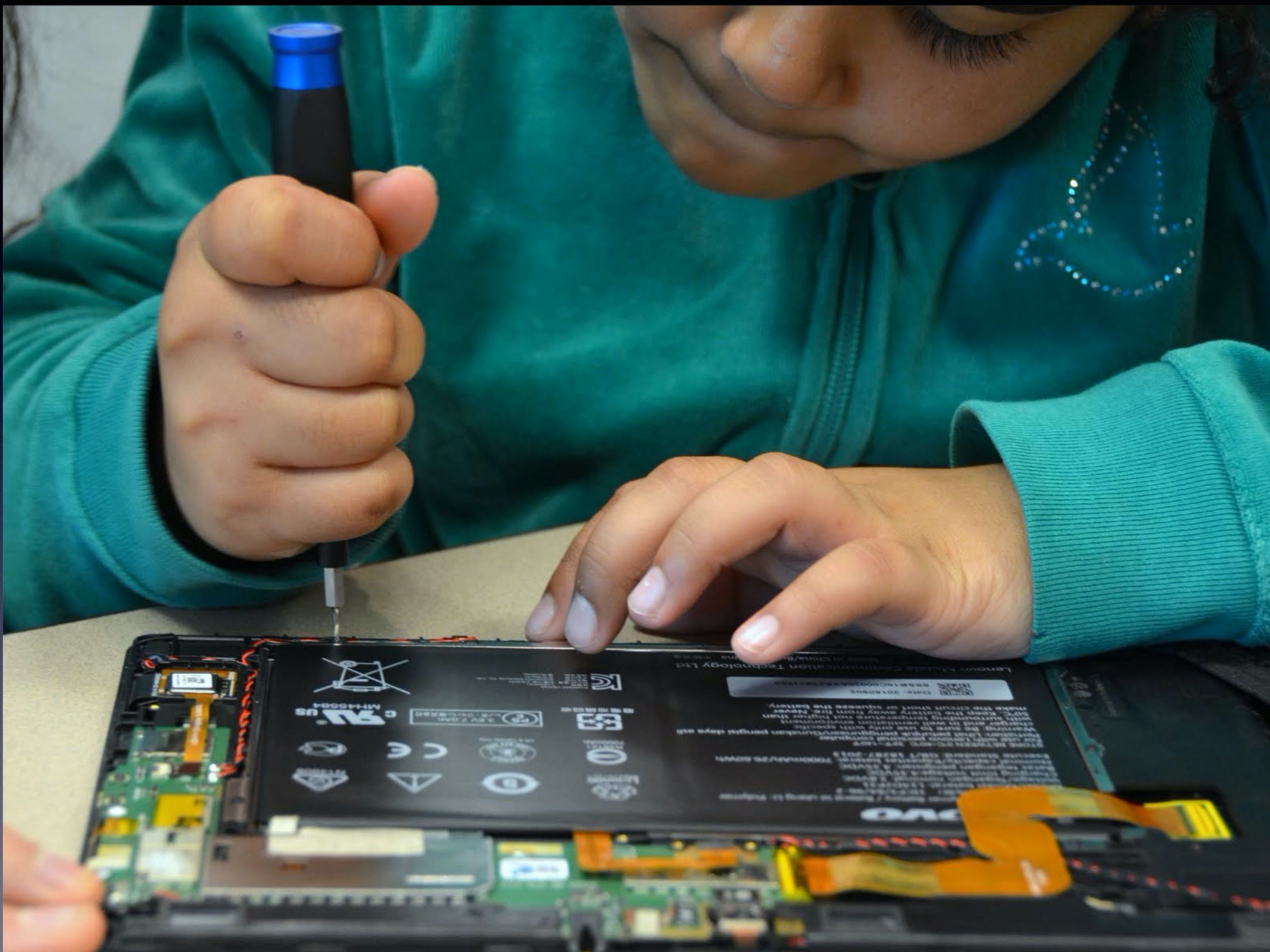
Thanks to you, old car seats have been reused in new products
across the country—one more step towards a better tomorrow.

Learn more at [Target.com/CarSeatRecycling](https://www.target.com/CarSeatRecycling)











Bolton Repair Café

Since September 2013

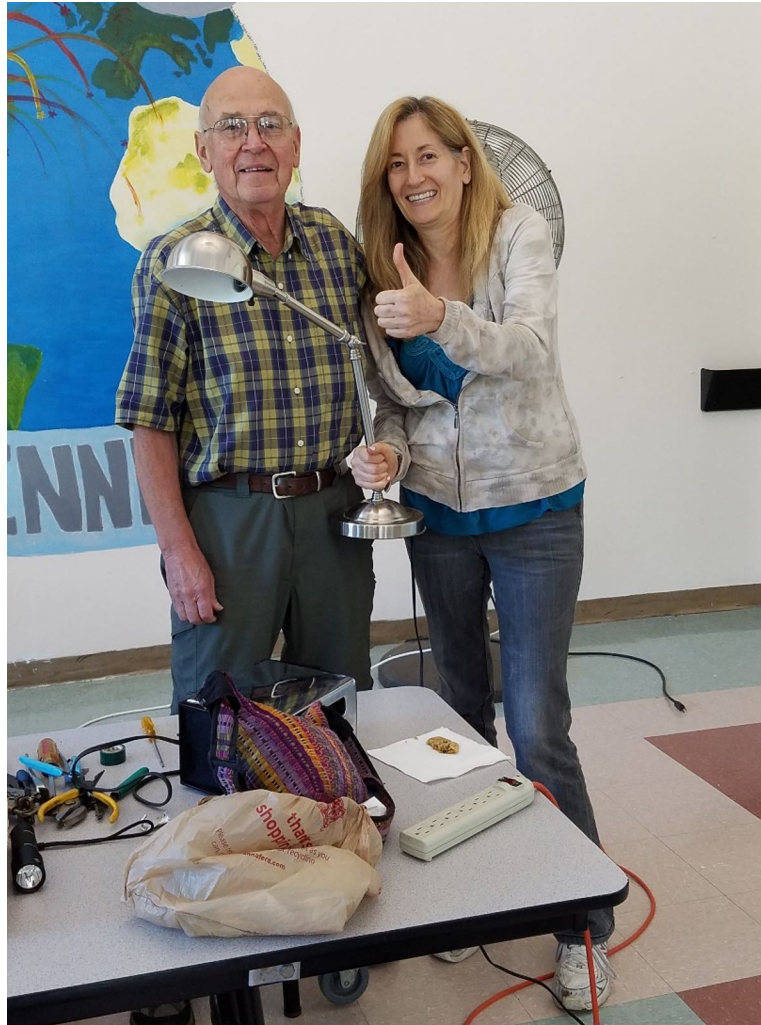
By Ray Pfau

ray.pfau@alum.mit.edu









33 Repair Events in Massachusetts

- Allston (Fixit Clinic)
- Arlington (Fixit Clinic)
- Belmont (Fixit Clinic)
- Bolton (Repair Café)
- Brighton (Fixit Clinic)
- Brookline (Fixit Clinic)
- Cambridge (Fixit Clinic)
- Colrain (Repair Café)
- Dedham (Fixit Clinic)
- Framingham (Repair Café)
- Greenfield/Amherst/Easthampton/
Montague (Ind Repair Public)
- Harvard Ed Portal (Fixit Clinic)
- Harvard Univ (Fixit Clinic)
- Hyde Park (Fixit Clinic)
- Jamaica Plain (Fixit Clinic)
- Lena Park/Dorchester (Fixit Clinic)

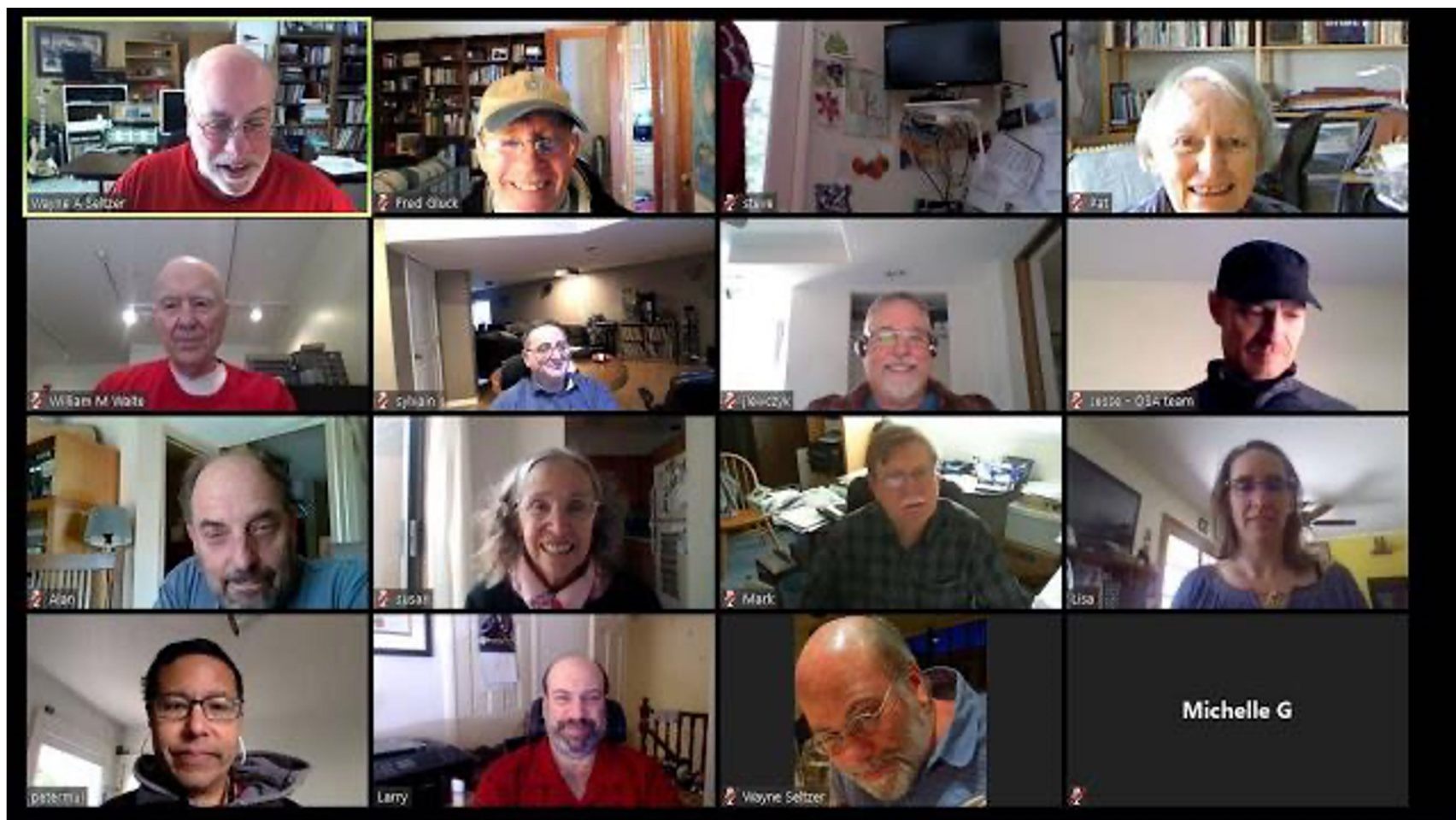


Repair Events in Massachusetts (cont.)

- Lenox (Ind Fix-It Fair)
- UMass Lowell (Repair Café)
- Maynard (Repair Café)
- Medford (Fixit Clinic)
- Newburyport (Repair Café)
- Newton (Fixit Clinic)
- Northampton (Ind RePair)
- Northborough (Repair Café)
- Pittsfield (1st Repair Café in Mass)
- Roxbury/Jackson Square (Fixit Clinic)
- Salem (Repair Café)
- Somerville (Ind Fixer Fair)
- Sudbury (Repair Café)
- Wellesley (Repair Café)
- Wellfleet (Fixit Clinic)
- Westborough (Repair Café)
- Williamstown (Repair Café)







Find Out More

- www.boltonlocal.org/initiatives/repair-cafe
 - Online calendar and other info
- www.nashobarotary.org
- www.facebook.com/nashobarotary
- www.repaircafe.org
- <https://fixitclinic.blogspot.com/>
- Contact me
 - ray.pfau@alum.mit.edu
 - (978) 779-5545



Maryam Kamangar

mkamangar@goodwill-berkshires.org



Goodwill Industries of the Berkshires & Southern Vermont, Inc.

158 Tyler Street, Pittsfield, MA 01201

Phone 413-442-0061, Ext 21

Fax 413-499-3756

www.goodwill-berkshires.org



Good for the Environment
Good for You

Reconnect is a residential computer recycling program that offers you an easy, convenient and responsible way to recycle your used computer equipment.

You can drop off any brand of used computer equipment at participating Goodwill donation centers in your area.

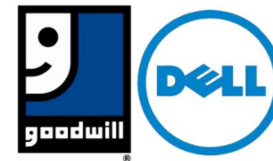
It's free, and you'll get a receipt for tax purposes.

What's more, you'll be helping protect the environment and benefiting your community at the same time.

What can I recycle?

Monitors	Ink/Toner Cartridges
Scanners	Computers**
Mice	Hard Drives**
Printers	Speakers
Keyboards	Cords & Cables
Laptop Batteries	

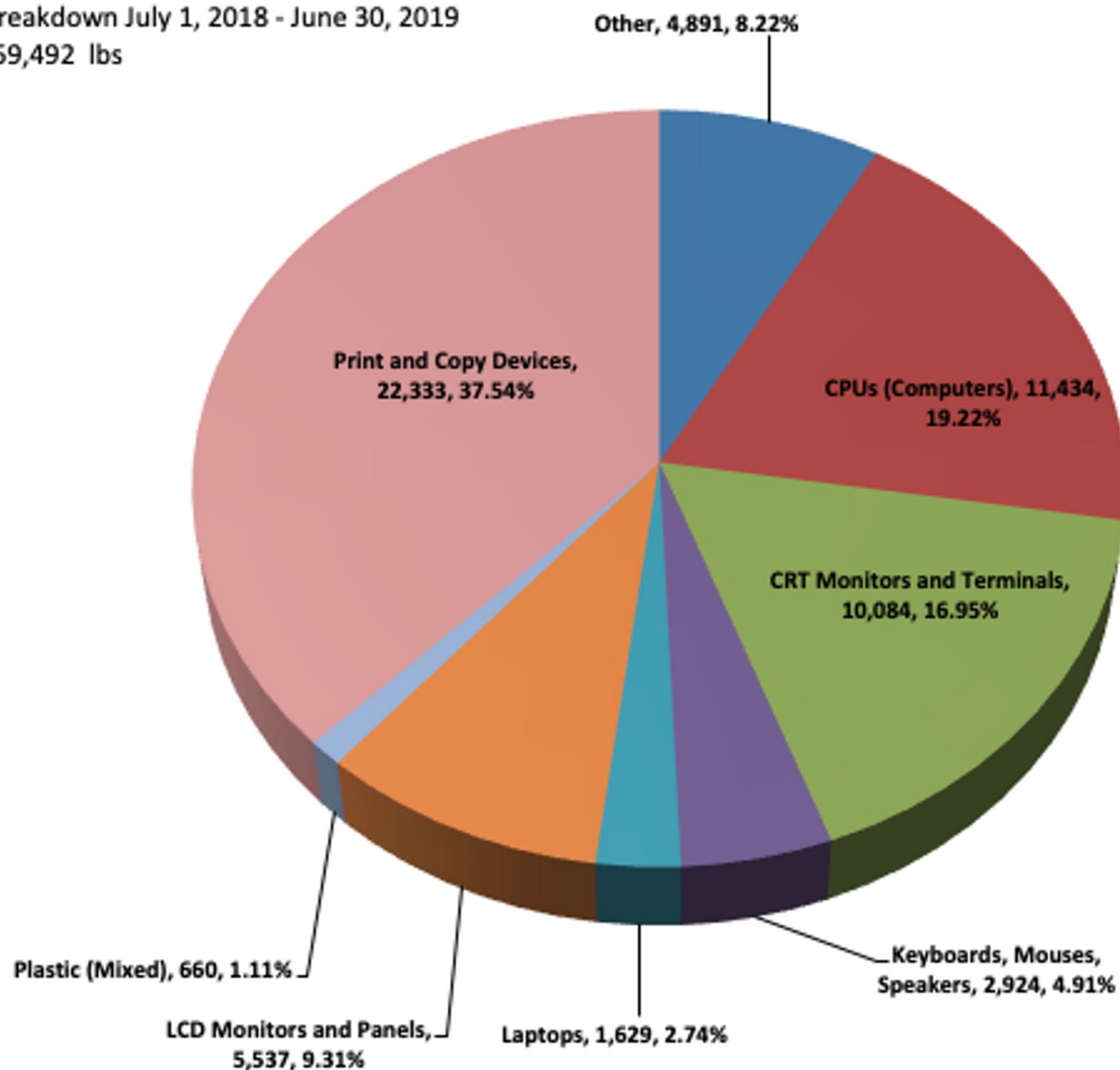
**Residents are advised to remove all personal data from their hard drives before donating a computer or hard drives. Residents are further advised to wipe their drive before Donation—a number of programs are available online. Neither Goodwill nor Dell are liable for data removal or protection.



Dell Reconnect

Load Breakdown July 1, 2018 - June 30, 2019

Total: 59,492 lbs

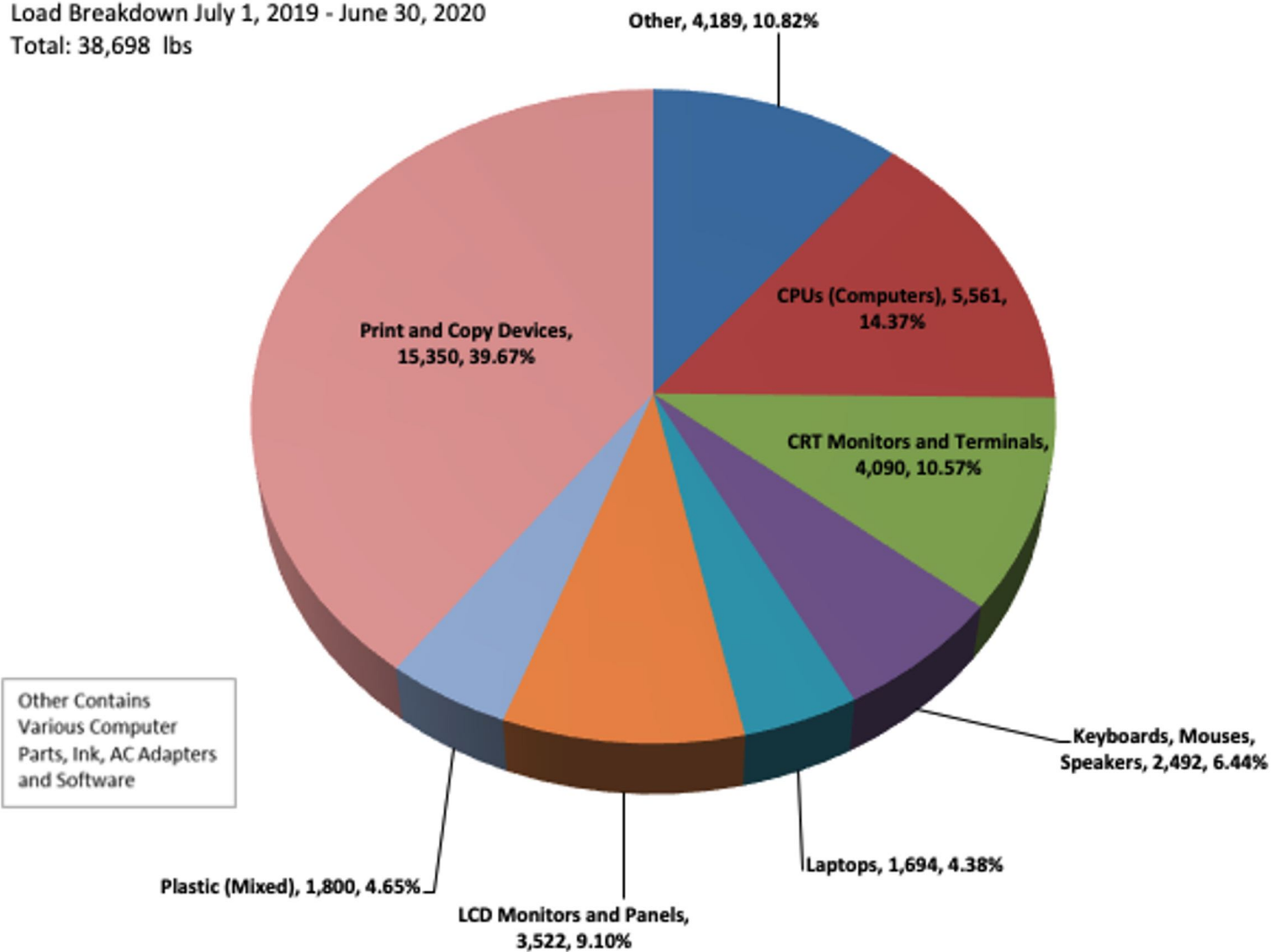


Other Contains
Various Computer
Parts, Ink, AC Adapters
and Software

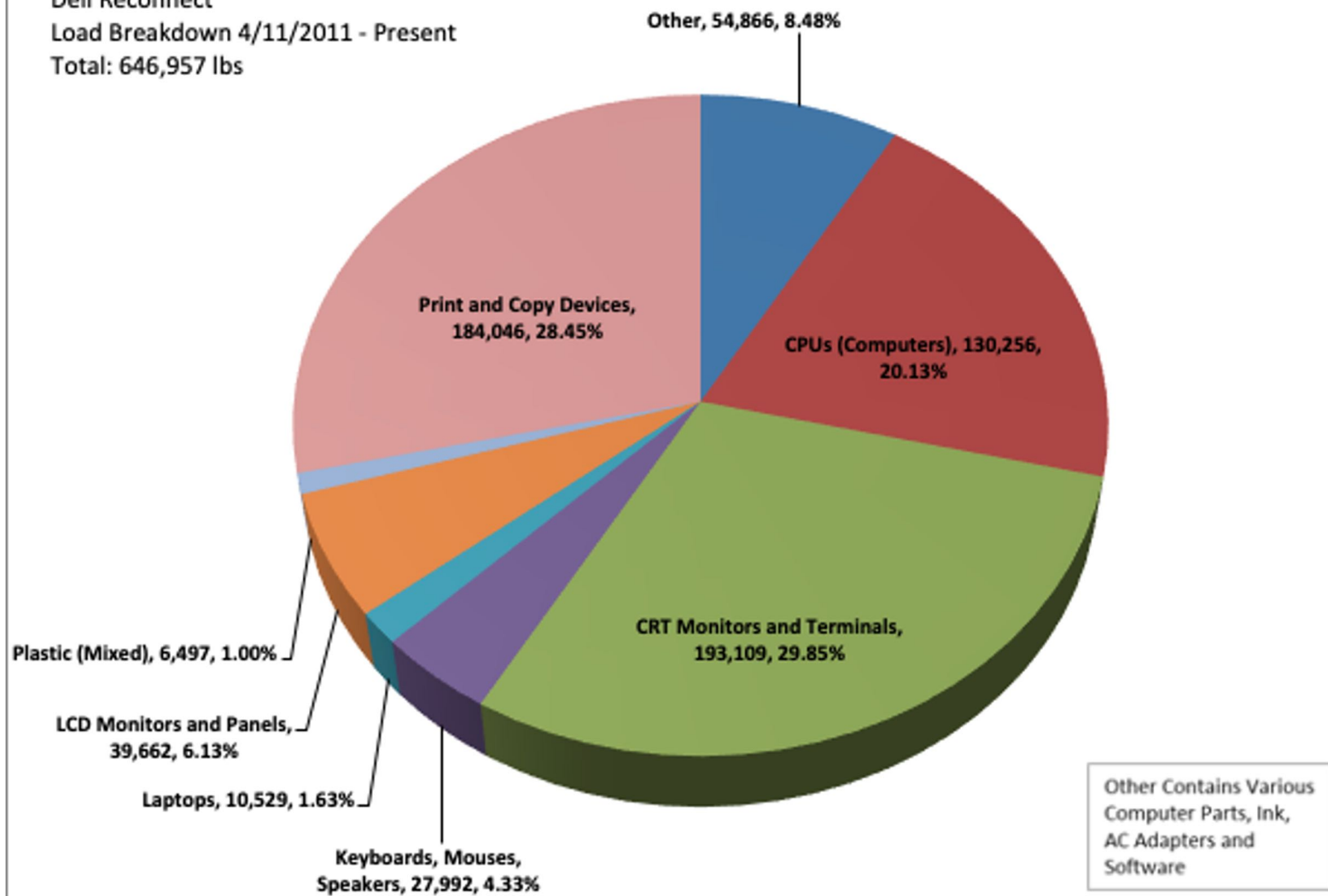
Dell Reconnect

Load Breakdown July 1, 2019 - June 30, 2020

Total: 38,698 lbs



Dell Reconnect
Load Breakdown 4/11/2011 - Present
Total: 646,957 lbs





Goodwill Industries of the Berkshires & Southern Vermont, Inc.

158 Tyler Street, Pittsfield, MA 01201

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Since July of 2018 to June of 2020, Goodwill Industries of the Berkshires and Southern Vermont Inc. has recycled the following items away from landfills in our territory:

RECYCLING DATA

Categories	July 2018 - June 2019	July 2019 - June 2020	July 2018 - June 2020
Thrifty Rags	11,441.00 Lbs.	10,457.00 Lbs.	21,898.00 Lbs.
Electronics	7,746.00 Lbs.	17,829.00 Lbs.	25,575.00 Lbs.
Card Boards	158,692.00 Lbs.	116,543.00 Lbs.	275,235.00 Lbs.
Textiles	1,042,744.00 Lbs.	916,163.00 Lbs.	1,958,907.00 Lbs.
Combo	115,577.00 Lbs.	34,907.00 Lbs.	150,484.00 Lbs.
Books	376,204.00 Lbs.	325,842.00 Lbs.	702,046.00 Lbs.
Metals	79,546.00 Lbs.	87,366.00 Lbs.	166,912.00 Lbs.
E-Cycle	24,634.00 Lbs.	16,684.00 Lbs.	41,318.00 Lbs.
Dell-Reconnect	34,689.00 Lbs.	38,689.00 Lbs.	73,378.00 Lbs.
Total	1,851,273.00 Lbs.	1,564,480.00 Lbs.	3,415,753.00 Lbs.

Total: 3,415,753 lbs. are equivalent to 19 planes w/ passengers or 17 trains w/ passengers

What do you see as the major hurdles to expanding repair?

If state or local government could do one thing to support your work as it relates to expanding repair here in MA, what would it be?

Q&A with our panelists:



Gay Gordon-Byrne
[The Repair Association](#)

✉ : ggbyrne@repair.org



Robin Ingenthron
[Good Point Recycling](#)

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& Southern Vermont](#)

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Discussion:

What have we missed? What are major hurdles to repair? What are actions state and local government can take to expand repair?

Next Meeting

**The R&R workgroup typically meets the 4th Wednesday of each month at 11AM.*

Date: September 23, 2020

Time: 11AM - 1PM

Location: Virtual.

Meeting topic:

Single Use Packaging & Food Service Products

News & Updates

Based on input received during its initial fall 2019 public comment period on the **Draft 2030 Solid Waste Master Plan**, as well as other developments, MassDEP has scheduled four more online public hearings on the document and will accept additional public comment through September 15, 2020. The re-opened public comment period will focus specifically, but not exclusively, on issues of environmental justice, climate change, and the impacts of the COVID-19 pandemic as they relate to solid waste management in Massachusetts. See the webinar playback in **Additional Resources** below for an overview of the Draft Master Plan.

Notice of Re-Opened Public Comment Period:

[English](#) | [Español](#) | [中文](#) | [繁體中文](#) | [Kreyòl Ayisyen](#) | [Português](#) | [Tiếng Việt](#)

Online Public Hearings: July 22, August 20 & September 1 & 10, 2020

Public Comment Period: Ends September 15, 2020

Public Comment Period Re- Opened

**Deadline for Comment is
September 15, 2020**

Updated R&R Workgroup Contact Directory

R&R Workgroup Contacts

To join the R&R workgroup or update your information using this [form](#) or by emailing erin.victor@mass.gov

We need YOUR help:

Crowdsourcing the MA Reuse Directory

Tell us about the reuse/repair/share retailers in your city, town or neighborhood: <https://airtable.com/shritqRieYZI54YQ5>

MA Reuse Directory

To add a retailer to the MA Reuse Directory, please fill out the following:

Organization Name

Address

Phone

Services:

- ☐ Customers can buy
- ☐ Customers can sell
- ☐ Customers can donate
- ☐ Customers can repair
- ☐ Customers can rent
- ☐ Customers can share

Accepted Items:

Which items are accepted for donation or repair?