



Mattress Recycling in the United States Challenges & Updates

2022 ABICOL CONFERENCE – BRASILIA

RYAN TRAINER

MATTRESS RECYCLING COUNCIL

JUNHO 2022

THE BASICS – WHO WE ARE



International Sleep Products Association (ISPA)

Trade association for the mattress industry



Mattress Recycling Council (MRC)

Non-profit created by ISPA in 2013 to develop and implement recycling programs in states with mattress recycling laws (California, Connecticut, Rhode Island – and Oregon in 2024)



Bye Bye Mattress

The consumer-facing brand developed by MRC

THE PROBLEM



Americans discard an estimated **15 million** mattresses each year

To address this opportunity –

- Mattress industry created MRC
- In operation since 2015
- Achieved 70+% recycling rate
- Example of Public-Private Partnership making a difference



OUR IMPACT

By December 2022, MRC will have:

Recycled more
than 11.5 million
mattresses

Diverted nearly
190,000 tonnes of
steel, foam, fiber
and wood for use in
new products

Saved nearly 11
million cubic metres
of landfill space

COMMON ELEMENTS

- Non-profit industry-run stewardship organization
- Funded by external, visible consumer fee
- Oversight provided by state agency
- Antitrust exemption

CHALLENGES

- Funding
- Collecting discarded units
- Improving operations
- Finding new and better markets for recycled materials
- Building circularity into manufacturing and design

FUNDING



- Mattress recycling not financially self-sufficient
- Requires recycling revenue + other funding
- Policy question: Should funding be “internalized” (manufacturer pays) or “externalized” (consumer pays)?



EXTERNAL CONSUMER FEE

For long-term durable products where imports have large market share, externalized fee is best

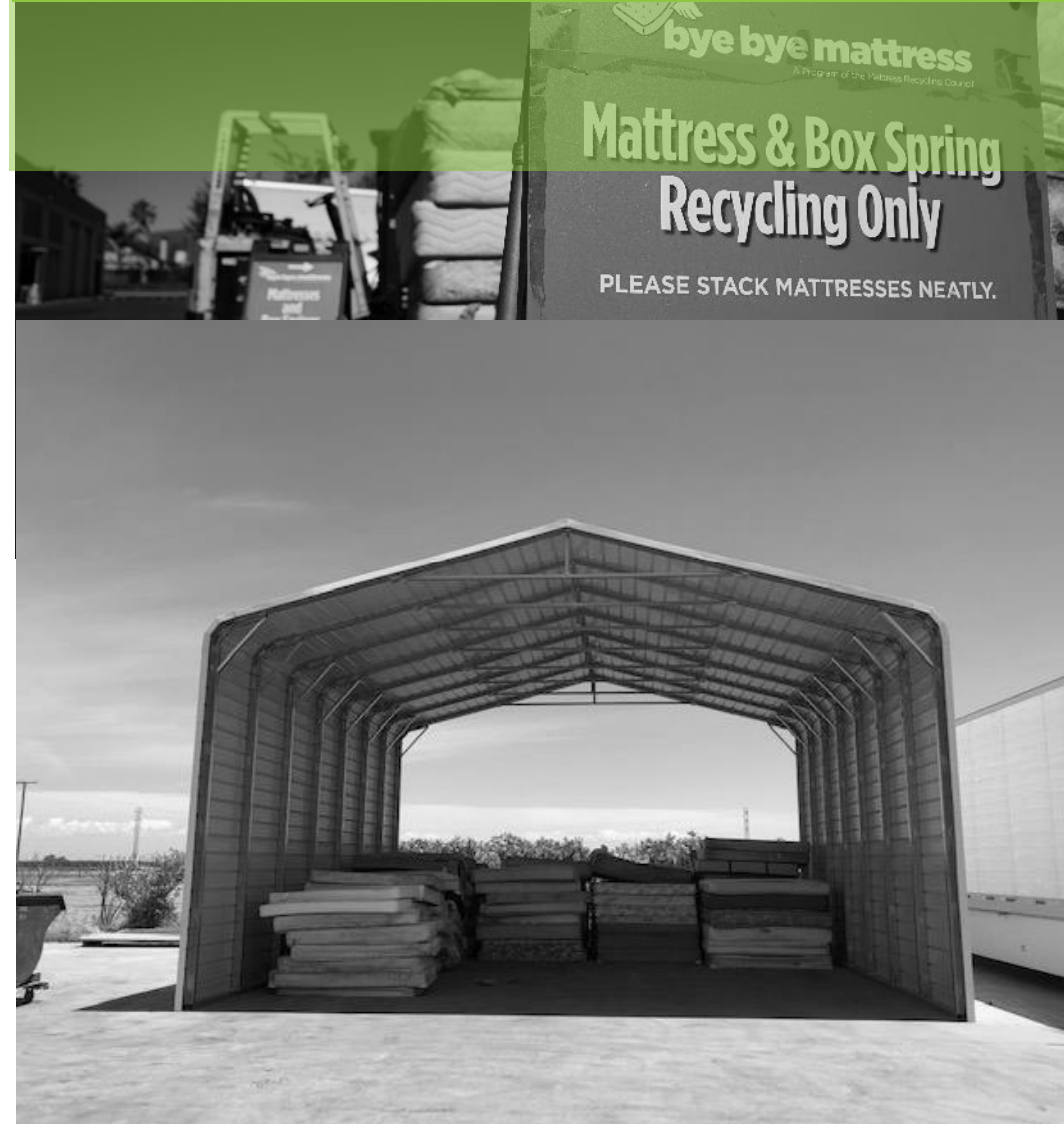
- Simple, efficient and equitable
- Easier to collect and verify
- External fee can be “visible” on sales receipt

WHAT DOES FEE PAY FOR?

- Containers and trailers for collection
- Transportation of mattresses to recyclers
- Mattress deconstruction and recycling
- Education and outreach
- Program administration
- Research and sustainability efforts
- Government enforcement

COLLECTION NETWORK

- Use existing infrastructure
 - Work with retailers to collect units from consumers
 - Work with solid waste authorities
- MRC's business support
 - Commercial Volume Program - MRC picks up mattresses from retailers, hotels and universities with 100+ units
 - Commercial Drop-off Sites - Ideal for smaller and rural retailers
 - Recycling Facilities - Participating recyclers accept large quantities at no cost





RETAILER OBLIGATIONS

- Collect MRC recycling fee on all units sold to consumers in California, Connecticut and Rhode Island
- Report and remit the fee monthly to MRC through MRCreporting.org
- Offer no-cost take back upon delivery of new mattresses (in California only)

CONSUMER OUTREACH

- In-store materials
- Advertising campaigns
- Public service announcements
- Social media
- Community events



**bye bye
mattress®**

A Program of the Mattress Recycling Council®

BYEBYEMATTRESS.COM

- Recycling locator
- Recycling tips
- Retailer take back information
- State program information

The screenshot displays the 'bye bye mattress' website. The header includes the logo, navigation links (About Us, Programs by State, Why Recycle?, FAQs, Media Center, Contact Us), a language dropdown set to 'English', and a 'Find a Location' button. The main heading is 'Mattress Disposal in California', followed by the text 'In the State of California, you have several options to dispose of an unwanted mattress.' and 'Select the option that works best for you.' Three green circular icons with numbers 1, 2, and 3 represent the options: 1. Retailer Take Back (illustrated with a delivery truck), 2. Recycle Your Mattress (illustrated with a recycling symbol and a truck), and 3. Bulky Item Pick Up (illustrated with a hand holding a mattress). Below each icon is a brief description and a 'Learn More' button. A note states: '*Due to COVID-19 some may have suspended take back services.' An inset window titled 'Bye Bye Mattress Locator' shows a search interface with tabs for Event, Locations, Site, and Recycling Facility. It includes a search bar with 'Palo Alto, CA, USA' and a 'Find Nearest Drop-Off' button. Below the search bar, it lists 'EVENT LOCATIONS (2)' with details for a 'Hilltop Church of Christ One day HHW & Mattress Drop Off Event' and a 'Clean Tahoe Community Cleanup Day'.

Mattress Disposal in California

In the State of California, you have several options to dispose of an unwanted mattress.

Select the option that works best for you.

1 Retailer Take Back

When you buy a new mattress and are having it delivered, ask your retailer about taking your old one back.

**Due to COVID-19 some may have suspended take back services.*

2 Recycle Your Mattress

Mattress components go to good use.

3 Bulky Item Pick Up

Bye Bye Mattress Locator

Event Locations (2)

- Hilltop Church of Christ One day HHW & Mattress Drop Off Event
West Contra Costa Residents
Saturday, August 29, 2020
- Clean Tahoe Community Cleanup Day
Saturday, September 12, 2020

IMPROVED OPERATIONS

Collection and Transport Efficiency:

- More units/load
- Add collection sites in underserved areas
- Better truck scheduling to shorten trips and reduce diversions
- Work with solid waste authorities to separate mattresses from other solid waste
- Protect units from weather



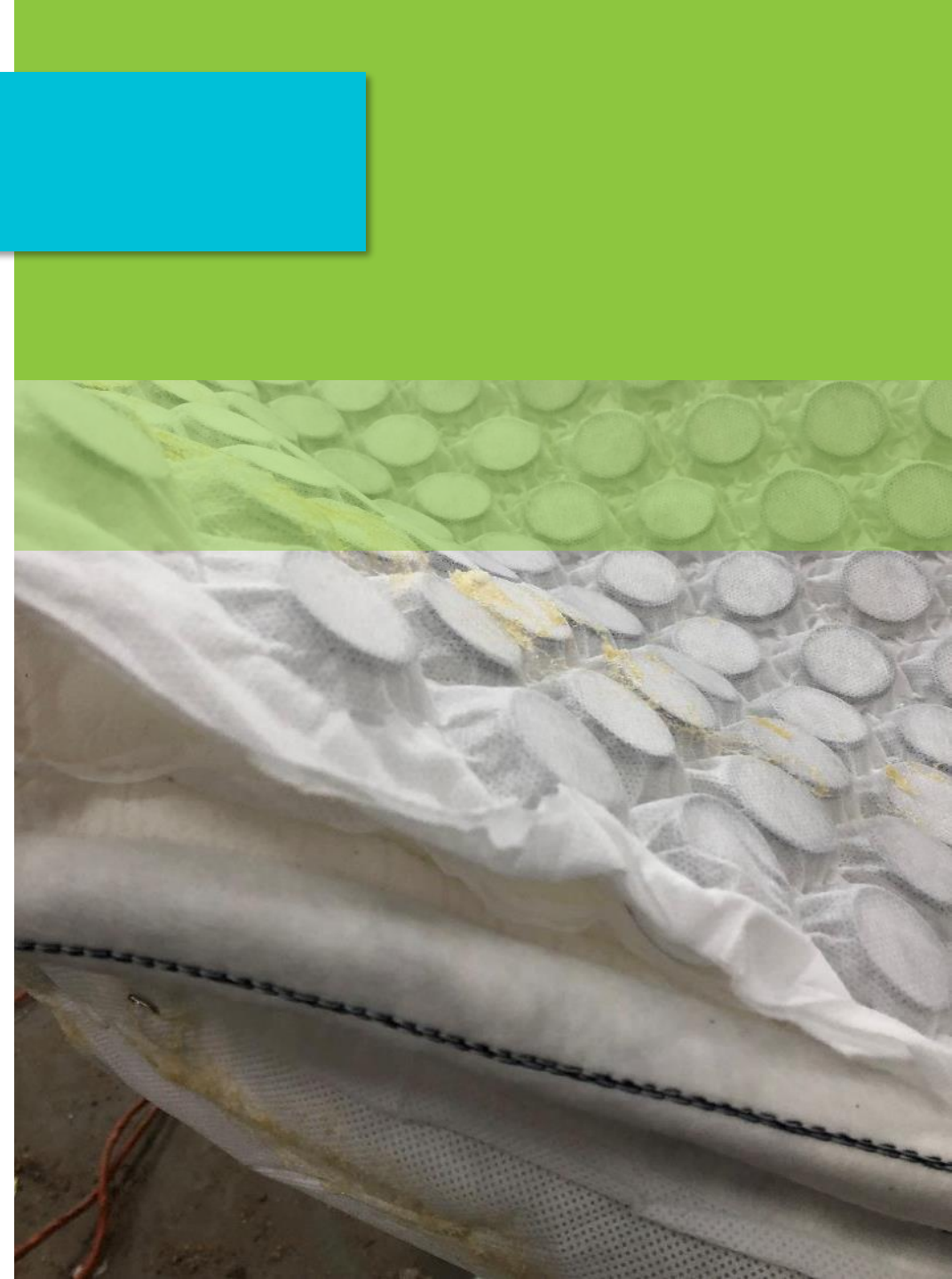
RECYCLER EFFICIENCY

- Lean manufacturing assessments
 - Identified 30% improvements
- Prototype to dismantle pocketed coils
- Safety/OSHA compliance audits
- Fire safety review
- Waste composition studies



RESEARCH

- MRC invests about \$1 million annually in research
- 20+ projects since 2018
- Focused on identifying new and better uses for recycled mattress materials



MRC RESEARCH GOALS



Increase recycling rates >75%



Improve financial health



Reduce environmental impact



Diversify end-use markets



Anticipate emerging challenges and develop strategies

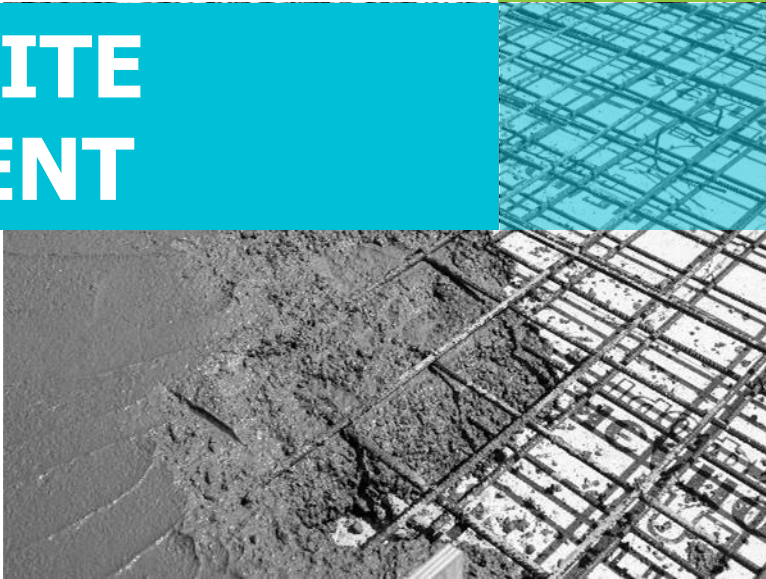
BATTERY ELECTRODES



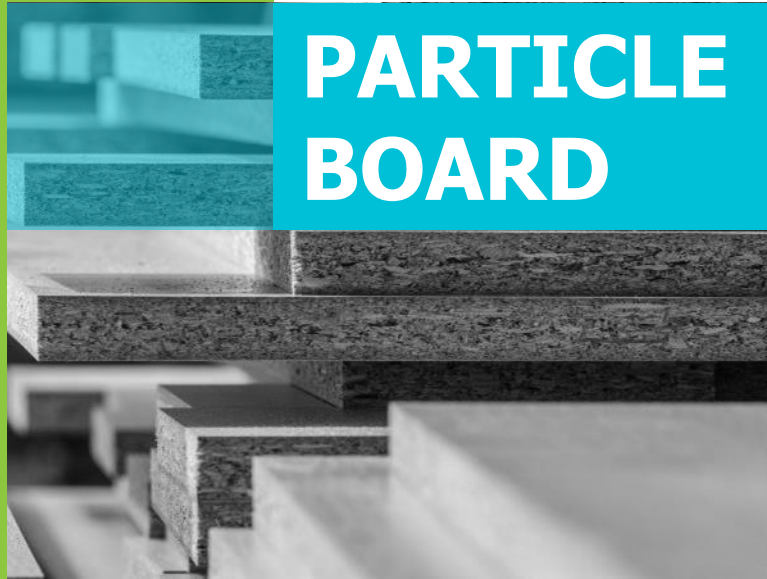
REFORMABLE FOAMS



ZEOLITE CEMENT



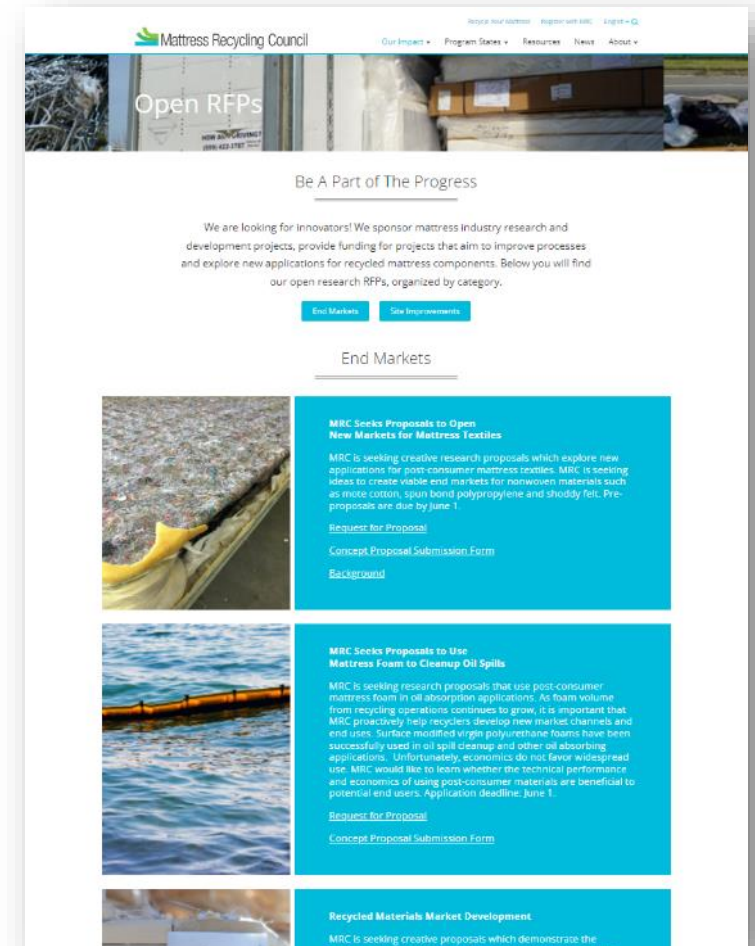
PARTICLE BOARD



CURRENT PROJECTS

FUTURE PROJECTS

- Oil Absorbing Foam RFP
- Textile Recycling RFP
- Age Study
- Fire Risks Webinar
- Open RFP: \$100,000/contract





SLEEP PRODUCTS SUSTAINABILITY PROGRAM

Proactive program designed by to help mattress manufacturers reduce waste, emissions and energy consumption while increasing operational efficiencies.

Includes –

- Working with manufacturers to develop process for continually reducing their environmental footprint
- Developing greater awareness of end-of-life recycling challenges when designing new products and materials
- Monitor new product features to identify future recycling needs and challenges

REDUCTION & CIRCULARITY

- Materials and waste reduction
- New Materials Recycling Committee
 - Forecasting for the future
- Circularity Committee
 - Engaging suppliers in supply chain
- New ISPA Sustainability Program





WHAT'S NEXT?

Legislative Update

Mattress Legislation Considered in the U.S. in 2022

- Oregon – Enacted, will launch 2024
- Maryland
- Massachusetts
- Minnesota

Other Activity

- Maine pilot program
- Massachusetts landfill ban
- Possible legislation in New York in 2023



THANK YOU

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mattressrecyclingcouncil.org/news/media-inquiries/

*To receive MRC Highlights and follow our
announcements.*

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