

# HIDDEN ABUNDANCE

2018 INAUGURAL UPCYCLERS  
GATHERING

Conference Summary & Next Steps



## OVERVIEW & BACKGROUND

The goal of the Inaugural Upcyclers Gathering, held on Monday December 10<sup>th</sup> 2018 at the Los Angeles Cleantech Incubator, was to discuss ways to support the development of a circular materials economy. This closed loop system, where materials and products are kept in circulation, can help create a new economic model where continued economic development is no longer tied to natural resource dependency and the economic value of materials is not lost to disposal.



### Specifically a closed loop material economy can:

1. Help offset the need for continued natural resource extraction and reduce the negative externalities associated with those activities such as pollution, environmental degradation, and greenhouse gas emissions.
2. Build inclusive opportunities for local economic development through the growth of services and processes that are catered to the material and product needs of individual neighborhoods.
3. Decrease reliance and use of landfill and the negative impacts associated with landfill operation including loss of land, destruction of soil health, and negative health impacts for surrounding communities.

While a true circular materials economy must incorporate many activities such as sharing, reuse, repair and product as a service business models, the primary emphasis of the Inaugural Upcyclers Gathering was on driving market demand for secondary material.<sup>1</sup> Specifically, the event strove to bring together businesses that utilize “waste” to create value-added finished products, with the broader ecosystem of policymakers, NGO’s, and suppliers, to understand how to best support the growth of the waste as a resource economy.

### The main reasons for this focus on driving private demand were as follows:

1. **Upstream Impacts.** Businesses that utilize waste as feedstock can, and in some cases already are, shifting the public perception of waste as being valueless (or seen as a cost center) into one where waste is seen as valuable feedstock. Once waste is more commonly seen as a resource, we can challenge acceptance of our continued reliance on virgin resource use and better incentivize investment in processes such as reverse logistics, recycling infrastructure, and new design principles that are needed to truly close the loop on materials.
2. **Market Need.** No organization or initiative in the United States, to our knowledge, has had a specific focus on bringing together the Upcycling ecosystem. However, organizations and networks already exist for Repair (<https://repair.org/>), Sharing (<https://www.shareable.net/>), and Reuse (<http://www.reuseconex.org/>); with a plethora of organizations focused on Recycling (<https://www.isri.org/>, <https://plasticsrecycling.org/>, <https://wasterecycling.org/>; etc. )
3. **Timing.** Due to China and most of SE Asia’s closure to foreign imports of many categories of recyclable materials last year, the United States is facing a glut of recyclable material that was once processed in the Asian market. In 2017, the US was exporting 41 million tons of material abroad with China alone accounting for 13 million tons, or 31% of that volume.<sup>2</sup> While this market collapse may benefit some domestic buyers of secondary material in the short term due to lower prices, many cities and recyclers are already dealing with decreased revenue from recyclable materials,

*The day was highly productive in creating market development opportunities for carpet due to the ability to reach innovators, private sector companies and government agencies as well as product designers and developers.*

*-Melanie Levine; Outreach Coordinator, Carpet America Recovery Effort*

<sup>1</sup> Secondary material, in this case, is a broadly defined category which may include both recycled and unprocessed material, excess material and “waste” from post-industrial sources, as well as post-consumer waste.

<sup>2</sup> Source: ISRI –NRC Quarterly Market Report, March 29, 2018

leading to losses of funding streams for their recycling programs or even the discontinuation of some services. Thus, the market closure presents an opportunity to build domestic manufacturing capability and demand for utilizing this recovered material.

4. **Helping to Meet GHG Reduction Goals.** Policymakers both domestically and globally are starting to look beyond a reduction in operational carbon measures (the carbon footprint of powering your car or the heat in your house) to achieve their climate goals and also look at how to reduce embodied carbon measures (the carbon footprint that goes into making the steel for your car, or the concrete that goes into building your house.) Supporting the use of recovered or discarded materials instead of relying on virgin materials can help drastically reduce global carbon emissions.

## ATTENDEES

Over 70 attendees from the policy, non-profit, and private sectors were in attendance representing 37 cities and 10 states. The intent of the day was to bring together a wide cross-section of the Upcycling community in the hopes of building bridges and best practices that could be applied across industries and materials. The event was successful in bringing together this diversity of attendees with professions including architects, engineers, professors, Executive Directors, policymakers, entrepreneurs, designers, CEO's, and sustainability officers in attendance; with industries and materials including furniture, rubber, fashion, recycling, construction, plastics, architecture, tubing, consumer goods, and agriculture represented.



## CONTENT

### The content for the conference was comprised of:

- Policy overviews of material management strategies, tools, and resources at the national, state, and city level
- Entrepreneur & Expert led breakout sessions on business resources and strategies
- Industry focused small group discussions segmented by the built environment, textiles, and material innovation
- Small group brainstorming sessions on how to support the waste=resource ecosystem
- Innovation Shares featuring 2 minute presentations from Shared Workshop, Pulp Pantry, and the Living Product Challenge.

Please refer to the [event website](https://www.circularcolab.org/upcyclers-gathering/) for access to speaker presentations. (<https://www.circularcolab.org/upcyclers-gathering/>)

## POLICY SUMMARY

Nathan Wittstruck from the EPA's Office of Resource Conservation and Recovery, David Goldstein from the Ventura County Recycling Market Development Zone, and Eric Heyboyer from the Colorado Department of the Environment helped to provide an understanding of policy goals and programs at the federal, state, and city level in relation to developing demand for recycled or waste material.

## Important Items of Note include:

- Overview of the EPA's Sustainable Materials Management Strategic Plan and impacts of China's market closure to the US recycling market
- Cal Recycle operates 40 Recycling Market Development Zones in partnership with local municipalities which offers permit assistance as well as 4% interest loans of up to \$2m for businesses that process or create finished product from recycled material for those in California.
- Colorado is launching Next Cycle, a business incubator that provides technical assistance to expand end markets for recyclables and organics.

## EXPERT DEEP DIVES AND PANELS

CEOs and experts were invited to provide in-depth insight on specific topics that could support the scale and growth of businesses who upcycle and maximize their impact.

### Sessions included:

- *The Value of Branding and Storytelling* led by Derek McSpadden, President, Noble Environmental Technologies
- *Creating End Markets and Public/Private Partnerships* led by Jan Rayman, Founder and CEO, Upcycling Technologies, Founder and Former CEO of Rewall
- *Measuring Embodied Carbon in Materials utilizing the WARM Model* presented by Nathan Wittstruck, Economist, US EPA
- *How Did we Get to Our Disposal Culture, Change is Inevitable* presented by Jon Huls, Professor of Sustainable Materials Management, Co-Founder, California Resource Recovery Association
- *Designing for End of Life & Recirculation*, Panel Discussion facilitated by Reyna Bryan, Founder, Rainchild Design, featuring Christina Johnson, Co-Founder and Creative Director, Up Cycle It Now; Ang Li, Assistant Professor, School of Architecture Northeastern University; and Kanika Arora Sharma Co-Facilitator, LA Living Future Collaborative



## BREAKOUT SESSIONS

The conference incorporated two breakout sessions, one segmented by industry and another focused on Ecosystem Opportunities.

### INDUSTRY BREAKOUTS

During this session the audience was asked to separate into the Built Environment, Materials Innovation, or Textiles group (industries were selected based on registered attendees) for small group sharing of best practices and networking. Co-moderators led each room and participants were asked to form groups of 4 to 5 people to share obstacles and challenges they were facing in their organization and possibly provide solutions or advice on how to approach their issues within the group.

### ECOSYSTEM OPPORTUNITIES

This session asked participants to randomly form smaller groups of 4-5 people to work together and brainstorm on system challenges and solutions in building a circular materials economy. Co-moderators facilitated the work of the groups. They were asked to visualize the current materials economy, list or draw the obstacles to closing the loop on materials and then list or draw solutions to enabling a more closed loop system.

*I traveled from Atlanta Georgia to attend the conference and found the day well worth the time and money. The event created some valuable contacts that will enhance my business.*

- J.T. Marburger, CEO of Circular Solutions Advisors

## DISCUSSION TRENDS

### Barriers to Circular Materials

Policy, Cultural Habits, and Design were the most frequently cited obstacles in closing the loop on materials.

**Policy** touched on the lack of incentives to utilize secondary material, the lack of a national framework and regulatory environment for materials management, and the absence of an updated accounting framework that took into account the “true costs” of material production, use, and end-of-life disposal.

**Cultural Habits** included the prioritization of convenience by consumers and the lack of consumer education and awareness around the harmful impacts of landfill, a disposable society, and single use packaging.

**Design** involved the topic of planned obsolescence for products and the growth in material complexity and material blends.

### Solutions for Closing the Loop

Policy, capacity building, and design were the most frequently cited levers attendees focused on as solutions to the creation of a closed loop material system.

**Policy** was a frequently mentioned solution with a specific focus on Extended Producer Responsibility at the national level, enforcement of existing laws, and sustainable procurement guidelines.

**Capacity building and Partnerships** included discussions around more workforce training, creating and financing pilot projects to change market perception, creation of cooperative organizations to share R&D costs between industry leaders for material development and reuse, more private public partnerships, and shared responsibility between consumers, manufacturers, and cities.

**Design** touched on the need for ease of material separation, incorporating end-of-life and life-cycle analysis within product development, and the ability to identify materials easily.

## FEEDBACK

Overall, over 95% of attendees said they would “likely” or “definitely” recommend this event to colleagues or co-workers with over 85% reporting they would “likely” or “definitely” attend again next year. The attendees at the event demonstrated enthusiasm and energy for further opportunities to network as well as learn about resources and best practices.

Some specific feedback points include:

- The most commonly cited highlights of the day were the diversity/quality of the attendees as well as the opportunity to interact with fellow “waste enthusiasts.”
- The breakout sessions generated the most debate with attendees saying that more time was needed for the breakouts and discussion groups, while others disliked the format altogether citing the difficulty to develop concrete solutions given the diversity of those in attendance.
- For future events, attendees recommended incorporating more material focuses, the need for more investor and Fortune 500 presence, a trade show format, more presentations on innovations that can scale, and a longer duration for the event.

**While there is always room to improve we would consider the Inaugural Upcyclers Gathering a success! We look forward to working together and creating an even more robust and impactful second conference!**

## NEXT STEPS

### Announcing the launch of the UPCYCLERS NETWORK!

Feedback from the conference made it clear there would be value in the creation of an Upcyclers Network so we are going to make this a reality!

The goal of the Upcyclers Network is to foster the creation of a closed loop materials economy by supporting the growth and impact of private businesses that utilize “waste” as feedstock. The Upcyclers Network will act as an industry association to amplify the impact and importance of the Upcycler Industry in building a truly sustainable economic system.

[Sign up to receive updates! \(<https://www.upcyclersnetwork.org/>\)](https://www.upcyclersnetwork.org/)

#### Priorities will be to:

1. Generate Awareness of the Upcycling Industry and individual businesses to potential clients, suppliers, the public, and policymakers
2. Provide networking and collaboration opportunities for Upcyclers and the broader materials management ecosystem
3. Act as an Educational Resource for the Upcycler Industry

#### Possible Activities to support these goals include:

- Creation of a centralized business directory
- Development of webinars, articles, case studies, and research reports
- Formation of Working Groups or Regional Networks to facilitate networking and b2b collaborations
- Organization of an Annual Upcyclers Conference and/or Trade Show
- Publication of an e-newsletter

## YOUR ROLE

Will your support us in building this network! We are actively seeking dedicated volunteers to join us on our mission of creating a circular materials economy.

#### Specifically, we are looking for those with the following skills and interests that can contribute approximately 5-7 hours/month:

- Website Architect & Manager to help design and build out the site
- Marketing/PR/Media Manager, experience with MailChimp preferred
- Industry Directors for Built Environment, Plastics, Textiles, and Material Innovation (must have at least 10 years of experience within the material/industry and strong network) to advise on industry needs, outreach strategy, and educational content
- Educational Leads (must have at least 5 years of experience within the material/industry) to help plan and provide content for activities such as webinars, case studies, articles, etc.

Want to contribute but none of these roles is a fit? Have funding or sponsorship opportunities we could apply for? Feel free to reach out! [gina@circularcolab.org](mailto:gina@circularcolab.org)

To express your interest in volunteering, please send an email to [gina@circularcolab.org](mailto:gina@circularcolab.org) specifying the role you are interested in and include your bio/resume/LinkedIn Profile. We will follow-up shortly to schedule an introductory call to share more about the role and expectations.

*We have the opportunity to build a new growth model that's low carbon, low environmental footprint, and empowers local economic development just by understanding that all materials, including “waste”, have inherent value.*

-Gina Lee, Founder, Circular CoLab

# THANK YOU!

Thank you for being passionate about creating a closed loop materials economy. We are at the start of our journey to help the world see the Hidden Abundance all around us and welcome your feedback and thoughts!

## SPECIAL THANKS TO Event Financial Sponsors



## Event Media Sponsors



## The Moderators and Speakers

Nathan Wittstruck- EPA Office of Resource Conservation & Recovery; Christina Johnson- Co-Founder & Creative Director of UpCycle It Now; JD Wang- CEO of reRubber; Joe Connell- Executive Director of the Building Materials Reuse Association; Reyna Bryan-Director of Rainchild Design; Sky Gilbar- Co Founder of Up, Up and Away; Jon Michael Huls-Professor of Sustainable Materials Management, Co-Founder of California Resource Recovery Association; Kaitlin Mogentale- Founder Pulp Pantry; Jan Rayman- CEO of The Rewall Company; Ang Li- Assistant Professor, School of Architecture, Northeastern University; David Goldstein- Manager, Ventura County Recycling Market Development Zone; Avideh Haghighi- Co-Facilitator, Los Angeles Living Future Collaborative; Kanika Arora Sharma- Co-Facilitator, Los Angeles Living Future Collaborative; Kala Maxym- VP West Coast Operations, Shared Workshop; Eric Heyboer- Recycling Grant Program Administrator, Dept of Public Health & the Environment, Colorado; Derek McSpadden- President and Global COO, ECOR;

**Day of volunteers - Kai Lee, Kala Maxym, Lindsey Perry and Julia Tsai**

And to the dozens of people who helped to share the event with their networks, provide feedback on the content and format of the day, and gave advice on the creation of the Upcyclers Network.