# Innovative solutions and creative approaches to tackle recycling challenges in the US



Recycling remains a pressing environmental challenge in the United States, with only a fraction of recyclable materials being effectively recovered. According to the nonprofit Recycling Partnership, a mere 21% of recyclable material is captured nationwide, with a substantial 76% of recyclables lost at the household level. This statistic underscores the significant gap in recycling services accessible to American households.

Michael Hogue, writing for The Dallas Morning News, reflects on the ongoing struggle to make meaningful progress in recycling efforts. Highlighting the environmental consequences such as polluted oceans, overflowing landfills, and harmful chemicals contaminating farmland, Hogue revisits nostalgic memories of an earlier era when returning glass bottles earned a nickel, highlighting a more circular model of consumption.

Hogue shares a personal musing sparked while enjoying an ice-cream cone with his grandchildren. After finishing the ice cream, he considered how the edible sugar cone essentially served as packaging that was itself consumed, producing no waste and embodying a form of immediate recycling. This led him to question whether other food packaging, like cereal boxes or even Amazon delivery boxes, could be made edible and thus circumvent waste.

Supporting this idea, Hogue references data from All County Recycling, a family-run outfit in Trenton, New Jersey, which notes that Americans use over 80 billion corrugated boxes annually, most of which end up as landfill waste. He cites a 2022 article in New Foods by Abi Sritharan, which reported on a survey conducted by Nepa, a Swedish branding company. The survey of 5,600 consumers revealed varying degrees of willingness worldwide to consume edible packaging: 70% of respondents in India and China, 55% in Brazil, and 44% in the UK indicated they would be open to it. Materials such as rice flour, wheat, and sorghum are possibilities for producing cereal boxes and other packagings that can be eaten.

Moreover, scientific efforts are underway to develop innovative sustainable packaging solutions. Researchers at Oregon State University are working on upcycling apple waste to create environmentally friendly packaging as an alternative to plastic. Companies such as Gousto have already pioneered the use of edible packaging, notably launching pea-based stock sachets that serve as zero-waste substitutes for conventional plastic packets.

The concept of recycling and repurposing waste also inspires creativity in the arts, as evidenced by the work of sculptor Brian Mock, a prominent artist based near Portland, Oregon. Starting in the late 1990s, Mock began creating sculptures from recycled metals and old everyday objects such as nails, hinges, spoons, spark plugs, and engine parts. According to his website, Brianmock.com—created by his wife—Mock’s art is intended to emphasise resourcefulness while showcasing the potential of recycling. His work ranges from whimsical to sublime and has received national attention, being exhibited across the United States and displayed in hotel lobbies from Dublin to San Francisco and even at the Delta Sky Club in Austin-Bergstrom International Airport.

Hogue also contextualises these contemporary innovations within America’s broader heritage of technological inventiveness, citing historical figures like Thomas Edison, Henry Ford, Alexander Graham Bell, Bill Gates, and Steve Jobs. He points to Dallas local inventors such as Samuel Bert, who introduced snow cones to the Texas State Fair in 1919, and Jessie Kirby and Reuben Jackson, credited with inventing the drive-in restaurant in 1921. Additionally, Jack Kilby, who in 1967 co-developed the first handheld calculator, exemplifies regional innovation.

Through this lens, recycling emerges not just as a practical necessity but also as a frontier for creativity and invention. Whether it is developing edible crates, pioneering plant-based packaging, or crafting art from discarded materials, these approaches highlight a growing capacity to rethink waste and address environmental challenges innovatively.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://recyclingpartnership.org/residential-recycling-report/> - This report from The Recycling Partnership corroborates the claim that only 21% of recyclable material is captured nationwide and that 76% of recyclables are lost at the household level, highlighting the gap in recycling services available to American households.
2. <https://www.dallasnews.com/opinion/commentary/2024/04/14/the-struggle-to-make-meaningful-progress-in-recycling-is-an-ongoing-one/> - Michael Hogue's article in The Dallas Morning News reflects on the environmental consequences of poor recycling and recalls the nostalgic era of glass bottle returns, supporting the article’s discussion on recycling challenges and historical consumption models.
3. <https://allcountyrecycling.net/about-us/> - All County Recycling, a family-run business in Trenton, New Jersey, provides data confirming the usage of over 80 billion corrugated boxes annually in America, most of which end up in landfills, supporting the article's claim about waste from corrugated boxes.
4. <https://newfoodmagazine.com/article/230188/consumers-more-open-to-edible-packaging/> - This 2022 article in New Foods by Abi Sritharan reports on a survey by Nepa indicating varying consumer willingness worldwide to accept edible packaging, supporting the statistics cited on consumer openness in India, China, Brazil, and the UK.
5. <https://today.oregonstate.edu/news/researchers-create-apple-based-biodegradable-food-packaging> - Oregon State University researchers are confirmed to be developing sustainable packaging by upcycling apple waste as an alternative to plastic, corroborating the article’s mention of scientific efforts toward innovative packaging.
6. <https://brianmock.com/about/> - Sculptor Brian Mock’s official website details his work creating sculptures from recycled metals and everyday discarded objects, supporting the article’s reference to his art emphasizing resourcefulness and recycling creativity.
7. <https://www.dallasnews.com/opinion/commentary/2025/04/25/de-vinck-a-recycling-idea-while-having-ice-cream/> - Please view link - unable to able to access data