



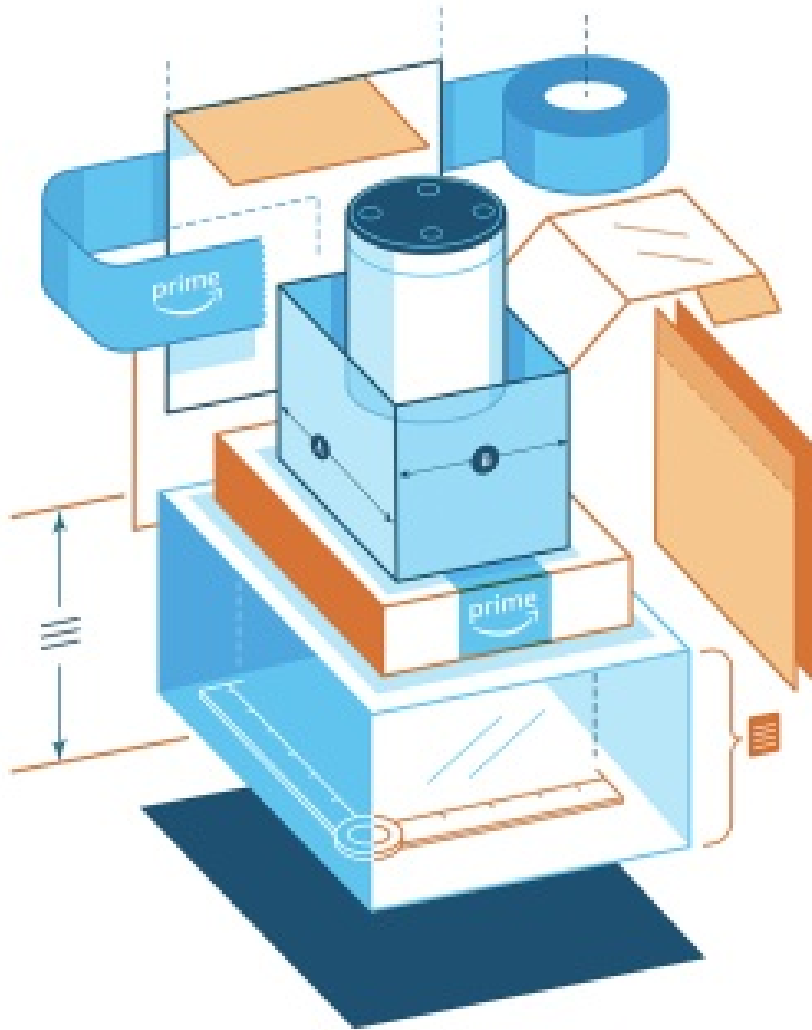
amazon

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Improving Our Packaging

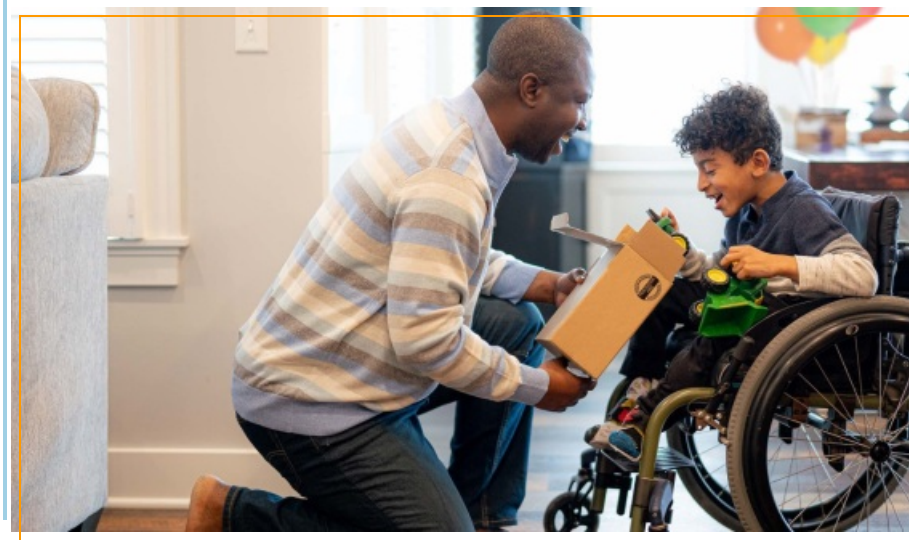
Amazon customers want right-sized, recyclable packaging that minimizes waste and ensures damage-free delivery. We work to reinvent and simplify our sustainable packaging options using a science-based approach that combines lab testing, machine learning, materials science, and manufacturing partnerships to scale sustainable change across the packaging supply chain. Learn more about how you can give your Amazon order a second chance [here](#).

Recycling Guidance

Driving Toward Zero Additional Packaging

At Amazon, designing packaging starts with the customer and works backwards. Unlike traditional retail stores, products bought online don't need the excess packaging and plastic materials used for displaying products on store shelves, such as twist-ties, bindings, and clamshell casings.

Frustration-Free Packaging >



In 2008, Amazon introduced [Frustration-Free Packaging](#) (FFP) to help manufacturers reduce packaging waste and develop sustainable alternatives for online fulfillment. Our FFP programs incentivize manufacturers to package their products in easy-to-open packaging that is 100% recyclable and ready to ship to customers without additional Amazon boxes. As of June 2021, we have reduced the weight of outbound packaging by over 36% and eliminated more than 1 million tons of packaging material since 2015—the equivalent of 2 billion shipping boxes.

Certification >



Less Packaging, More Smiles

Frustration-Free Packaging

36%

Reduction

Outbound packaging by weight

1 Million

Tons

Packaging material eliminated

2 Million

Products

Qualify under our FFP Programs




Partnering to Reduce Waste

We teamed up with Procter & Gamble to invent the Tide Eco-Box, a concentrated version of Tide's traditional laundry detergent compressed into a fully recyclable, shipping-safe package. It uses 60% less plastic and 30% less water than a conventional plastic jug, and requires no additional packing materials to ship.

[Learn More](#)

"It's been rewarding to find something that is a win not only for the consumer, but for the company and for the environment."

Elizabeth Kinney
Procter & Gamble



Recyclable Paper Padded Mailer

Our innovative paper padded mailer offers the same recyclability as our corrugated boxes, while taking up less space in transit and in the recycling bin. The paper padded mailer is made of four layers of paper and a water-based cushioning material, which was designed to easily separate in the same way that print inks and other paper coatings are removed during the paper recycling process. We are expanding our use of paper padded mailers across North America to replace the use of mixed paper and plastic mailers by the end of 2022.

[Learn More](#)

Improving Our Packaging Selections

As we continue to expand our FFP programs to reduce the need for additional packaging, we are improving the design and materials used for our packaging assortment. We are reducing the weight of packaging materials, while making our packaging more robust to avoid damage in the e-commerce supply chain. We've also added on-package messaging to inform customers about these improvements and provide guidance on how to recycle their packaging materials.

Flexible Paper-Based Mailers

We are increasing our use of flexible paper-based mailers across Europe, allowing us to significantly reduce the use of plastic in packaging materials by the end of 2021.

Eliminating Thin Film Plastics

In India, Amazon eliminated single-use, thin film plastics in packaging in 2020 by replacing plastic materials

like bubble wrap and air pillows with paper cushions and introducing plastic-free, biodegradable tape.

Increasing Recycled Content

We are improving the composition of our plastic packaging solutions to use less material and incorporate more recycled content. We are increasing the recycled content of our plastic film bags from 25% to 50% in 2021, and from 15% to over 40% for our plastic padded bags. Together, these improvements are expected to eliminate more than 25,000 metric tons of new plastic each year.

Reducing Plastic

At our Whole Foods Market stores, we switched to smaller plastic produce bags and replaced all plastic rotisserie chicken containers with bags that use approximately 70% less plastic. Combined, these changes are estimated to save nearly 2 million pounds of plastic annually.

Eliminating Plastic Straws and Polystyrene

In 2019, Whole Foods Market became the first national retailer to remove all plastic straws from its cafes and coffee bars—avoiding 21 million straws annually. We also eliminated all polystyrene meat trays across Whole Foods Market stores in the U.S. and Canada.

Recyclable Grocery Solutions

At Amazon Fresh and Whole Foods Market in the U.S., we are rolling out a curbside recyclable solution to keep grocery items frozen or chilled during delivery. This new packaging is produced with recycled paper and eliminates the need for plastic liners or bubble bag insulation.



Packaging for Amazon Devices

In 2020, we committed to make Amazon device packaging 100% curbside recyclable by 2023. We are also working to source 100% of the wood fiber in our packaging from responsibly managed forests or recycled sources. We made significant progress toward these goals in 2020, eliminating more than 27 million plastic bags from our device packaging and sourcing more than 97% of the wood fiber packaging for all new Echo and Fire TV devices launched in 2020 from responsibly managed forests or recycled sources.

[Learn More](#)

Optimizing Through Machine Learning

How big of a box is needed for a given product? Is an Amazon box needed at all? To optimize packaging selections at Amazon's scale, we use machine learning algorithms to arrive at the best possible packaging choices for deliveries. That means identifying which products don't need additional packaging, and which smaller products are suitable for flexible packaging, such as padded mailers and bags, which are up to 75% lighter than similar-sized boxes. Flexible packaging conforms around products, reducing the need for additional packing materials, and takes up 40% less space than a box during shipping. In cases where the protection of a box is needed, machine learning helps us continuously optimize box choices to fit our ever-changing catalog of products and redesign boxes to use less material. When packaging weighs less and is

the right size to protect customer orders, we can pack more orders into each delivery, resulting in fewer trips and less fuel burned.

We also use machine learning to identify products where even small packaging improvements can have significant impacts on reducing waste. For example, we developed a machine learning model to identify liquid products with the highest average rates of customer-reported damages. We subject those products to extensive testing at our Amazon Packaging Lab, where we simulate a package's journey from the manufacturer to the customer, providing data and insights we can share with manufacturers to improve their packaging design.

Partnerships





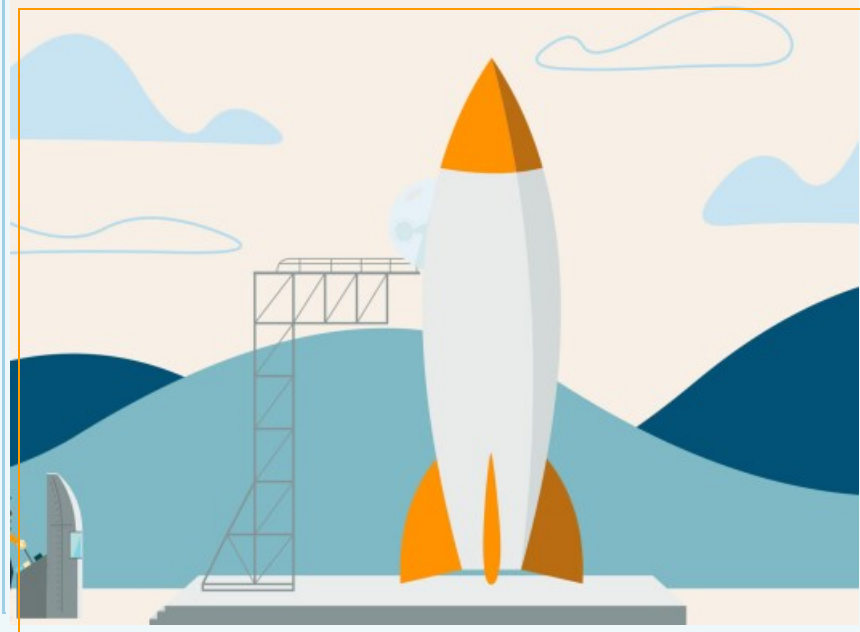
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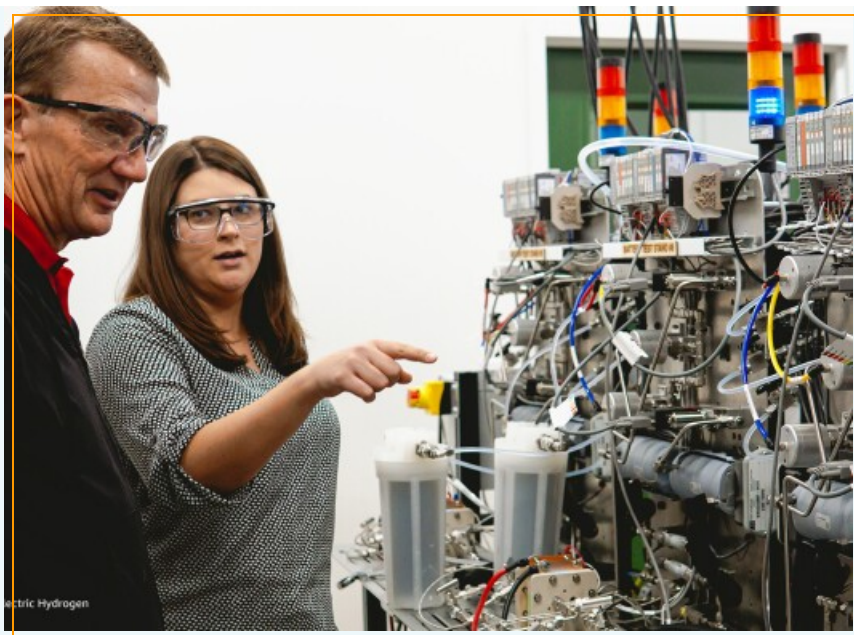
Latest news

See how we put our scale and inventive culture to work on building a sustainable future.



New Amazon program grants \$20,000 to up to five small businesses

New program supports small businesses that offer innovative, high-quality products built with sustainability in mind. Selected recipients receive \$20,000, access to Amazon Launchpad, guidance, and selling opportunities.



Amazon invests in green hydrogen companies

The Climate Pledge Fund's latest investments in green hydrogen will help reduce global carbon emissions from heavy-duty transport and industries such as steel production.



BETA Technologies receives new funding from The Climate Pledge Fund

BETA's ALIA electric aircraft conducted a test flight between Amazon Air hubs as it continues to advance its mission of decarbonizing air transportation.

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All photos of people not wearing masks were taken prior to the COVID-19 pandemic.