Building a Better Future Together

2022 Amazon Sustainability Report

About Amazon

Amazon is a global company with approximately 1.5 million full- and part-time employees worldwide and operations in Africa, Asia-Pacific, Europe, India, Latin America, the Middle East, and North America. We strive to be Earth's most customer-centric company, Earth's best employer, and Earth's safest place to work in the industries in which we operate. Everything we do to achieve these ambitions is guided by four principles:

- Customer obsession rather than competitor focus
- Passion for invention
- Commitment to operational excellence
- Long-term thinking

Our dedication to delighting customers drives us to constantly invent on their behalf and has led to the launch of many innovations, including 1-Click shopping, Alexa, Amazon Echo, Amazon Studios, Amazon Web Services (AWS), Career Choice, customer reviews, Fire tablets, Fire TV, Fulfillment by Amazon, Just Walk Out technology, Kindle, Kindle Direct Publishing, personalized recommendations, Prime, and The Climate Pledge.

Amazon was built on the belief that with understanding, ingenuity, and innovation, we can more effectively overcome any challenge we face. We believe addressing environmental and societal challenges requires the same mindset. We aim to have a net-positive impact on the world through sustainability because it's good for the planet, for our business, for our customers, and for our communities.

About This Report

The 2022 Sustainability Report is our fifth report detailing progress against our targets, commitments, and environmental, social, and governance topics.

All financial figures are reported in U.S. dollars ($), unless otherwise stated. Please note that data within this report reflects progress from January 1 through December 31, 2022, unless otherwise indicated.

How to Navigate This Report

Look for these symbols throughout the report:

A link that directs you to a website

A link within the report

A link to a download

Framework Disclosures

Alongside this report, we share details of our approach to sustainability governance and disclose our 2022 performance against reporting frameworks on our website, including the Sustainability Accounting Standards Board (SASB), the United Nations Sustainable Development Goals (SDGs), the Task Force on Climate-related Financial Disclosures (TCFD), and the United Nations Guiding Principles (UNGP) Reporting Framework.

Learn more in our 2022 Sustainability Reporting Framework Summary.

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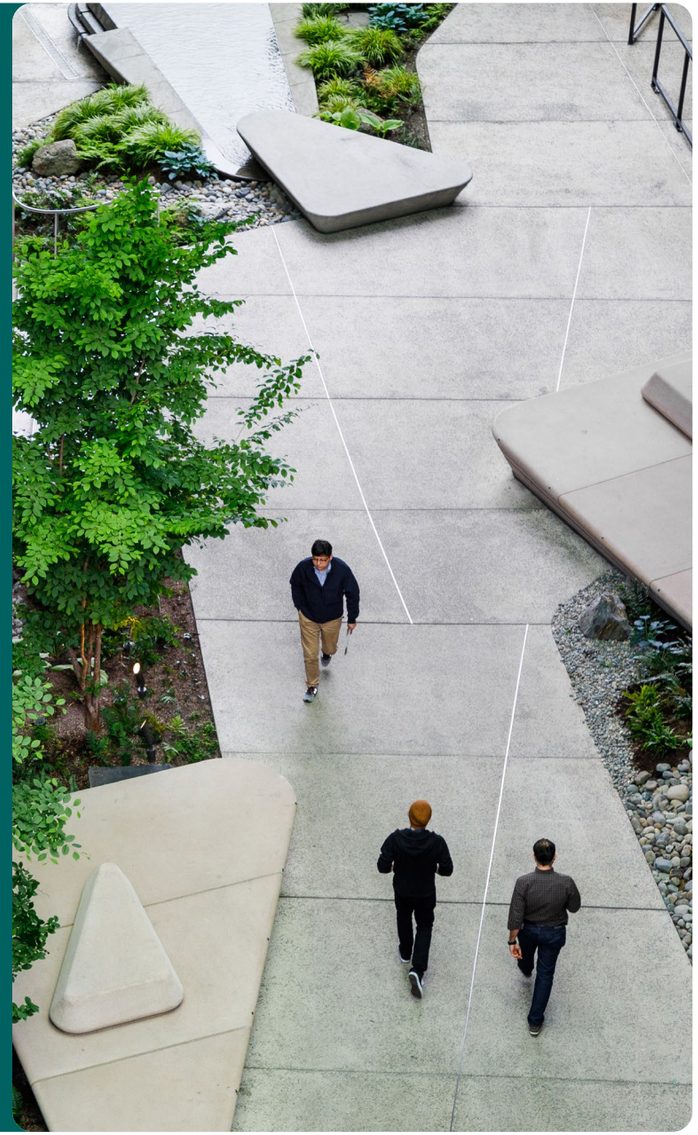


Amazon employees at our headquarters in Seattle, Washington.

Opening Letter From Kara Hurst

Reflecting on the last year, I'm proud of the work our teams around the world have accomplished and I'm excited about what's ahead. We have taken important steps forward in our social, community, and environmental work, while always expanding our vision for the future. At the center of it all is our customer obsession. Sustainability is an important issue for our customers around the world, and we are continually investing, inventing, and improving to make every customer interaction more sustainable than the last.

This isn't a distant vision for the future—this work is well underway now. Take our e-commerce business. From the moment a customer clicks "Buy Now" to when their package arrives on their doorstep, we have teams of scientists and engineers working to make that process more sustainable, all without compromising on speed, safety, or convenience. We are deploying new building technologies, such as low-carbon concrete, to make our facilities more sustainable—as seen in the launch of our second headquarters buildings, which set a new standard for sustainable design. We are investing in renewable energy around the world, and we are the largest corporate buyer of renewable energy in the world for the third year in a row. Our teams are analyzing routes and distances to build a logistics system that gets packages to customers faster, with fewer emissions. And we are transitioning our fleet to roll out 100,000 Rivian electric delivery vehicles by 2030, with thousands on the road now.

And that's just a small part of our story. While our most visible sustainability work may be in how we deliver orders to customers' doorsteps, we are more than an e-commerce company. Amazon is an entertainment studio, cloud provider, grocer, and more—and we are making sustainability a priority across all of our businesses.

For example, sustainability might not be top of mind when you tune in to watch your favorite Amazon Original series, but it is for us. We are reducing the use of fossil fuels from our production studios, deploying battery-electric generators, using solar-powered cast trailers, and scaling the use of electric vehicles on our sets. We are doing all of this in the background while delivering exciting new shows for our customers.

Cloud computing also plays a role in reducing our customers' environmental impact. With Amazon Web Services (AWS), customers no longer run their own data centers, which often operate at low utilization rates, leading to a lot of wasted energy. Instead, customers can take advantage of the advanced engineering of AWS data centers that utilize some of the most highly reliable, secure, energy-efficient hardware in the world. AWS can lower customers' workload carbon footprints by nearly 80% versus on-premises computing workload, and we expect that number to increase once AWS is fully powered by renewable energy.

In the communities where we operate, we are also doing our part to help solve rapidly growing challenges facing the world today. Take water scarcity as an example. Amid unprecedented droughts around the world, we committed that by 2030, AWS data centers will return more water to communities than they use in their direct operations.

No matter the industry, from entertainment to grocery to cloud computing, we are determined to show the world that if we can do this, others can too. In many cases, our work sends important demand signals to the market, which helps drive more renewable energy, more-sustainable building materials, and other innovations that help businesses and organizations around the world reduce their own impact on the environment.

Scaling our positive impact is underpinned by The Climate Pledge—a commitment to be net-zero carbon by 2040—which we co-founded in 2019. The Pledge invites every sector that touches our business (and those that don't) to make their own ambitious climate commitments. We are creating a community that inspires each other to do more, and to out-innovate even ourselves as we know we can't do this alone. More than 390 companies across 36 countries signed the Pledge by the end of 2022, and we are determined to keep bringing on new partners to help combat climate change.

We are also committed to supporting third parties in their own decarbonization efforts. Amazon has one of the largest value chains in the world. As we know the first step in reducing emissions is to understand them, we will continue to work directly with our suppliers, and, starting next year, will update our Supply Chain Standards to require regular reporting and emissions goal setting. We'll also use our scale, investment, and innovation to date to provide our suppliers with products and tools that will help them reach their goals—whether those are transitioning to renewable energy or increasing access to sustainable materials.

We recognize that sustainability does not have an expiration date, and there will always be more to do. But today, we are taking on some of the hardest problems in the world to solve, with a long-term view, which involves no shortcuts or quick fixes. We remain confident in our approach. You might not see all of the large-scale changes that we are making reflected imminently; our company thinks in the long term. We are working tirelessly to deliver on our sustainability commitments with the impact and scale our customers have come to expect from us, while bringing entire industries along with us and transforming how we work on planet Earth.

When we look back at this moment in time, my hope is this: that our teams are immensely proud of the ambitious challenge we took on and the solutions we implemented, and that we have continued to build on our progress to keep thinking even bigger and moving even faster. That our customers see that we remained obsessed with tackling some of the world's biggest sustainability challenges on their behalf. And that we were willing to make the big bets necessary—even if we wouldn't see results for years to come—to ensure the next great climate solutions can scale fast to help set our planet back on the right track, and that all future generations can live in healthy, thriving communities.

With gratitude,
Kara Hurst
Vice President, Worldwide Sustainability, Amazon

Our Business

Amazon is committed to addressing sustainability at every stage of our value chain.

Our Supply Chain

We procure materials, commodities, components, finished goods, and services from a complex supplier network. We engage suppliers globally to align our expectations for respecting human rights, maintaining safe, inclusive workplaces, and promoting sustainable practices.

Our Operations

We offer access to a wide selection of products sold by us and by third parties across dozens of categories. We offer products and services—both Amazon branded and from many other brands and third-party sellers—in our Amazon stores, leveraging advanced transportation logistics to deliver globally. We also create entertainment content and, through Amazon Web Services (AWS), provide the world's most widely adopted and comprehensive cloud offering.

Our Employees

The approximately 1.5 million people in Amazon's global workforce are the key behind our successes—from enabling global fulfillment to delivering on sustainability initiatives. To support them in advancing their own career goals, we offer competitive pay and benefits, upskilling and educational development programs, and a workplace that promotes inclusion and diversity.

Our Communities

Amazon has a presence in communities throughout the world. We seek to be a good neighbor wherever we operate and to support local people and charitable organizations that meet on-the-ground needs. In particular, we leverage our scale, resources, and expertise to address issues where we can have the greatest impact—namely affordable housing, education, basic needs, and disaster relief.

Our Customers

We continually seek new and better ways to serve customers, offering lower prices, more convenient services, and a larger selection of more-sustainable products. We also help customers advance businesses and enable digital transformation through AWS, content development services, and advertising options. In addition, we support small businesses with access to Amazon tools, resources, and our network, helping them reach customers around the world.

2022 Year in Review

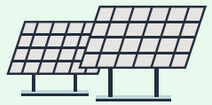
Sustainability

7%
Decrease in carbon intensity

0.4%
Reduction in absolute carbon emissions, as year-on-year net sales grew 9%

396
Signatories of The Climate Pledge

World's largest corporate purchaser of renewable energy for the third consecutive year



401
Global renewable energy projects announced, growing our capacity to 20 gigawatts of clean energy

14K
Women supported through RISE since 2019

82M
Meals donated in the U.S. and Europe

2.4B
Liters of water expected to be replenished per year through water-restoration projects completed or underway in 2022

2M+
Tons of delivery packaging avoided since 2015

11%
Packages shipped in their original packaging globally, up from 8% in 2021

818M
Climate Pledge Friendly products sold

$50M
Committed to accelerate women's climate innovations by The Climate Pledge Fund

$3M
Committed to the U.S. Agency for International Development (USAID) Climate Gender Equity Fund

90%
Electricity consumed across our operations attributable to renewable energy sources

People

39%
Increase in Black executives (director or above) since 2021

32%
Increase in Latino/a/x executives (director or above) since 2021

66%
Increase in women executives (director or above) in STEM-focused roles since 2021

~$10B
Invested in employee benefits in the U.S.

$1B
Invested in increased wages for U.S. front-line workers

24%
Improvement in global Recordable Incident Rate since 2019

53%
Improvement in global Lost Time Incident Rate since 2019

60K
New participants in Career Choice, an Amazon benefit that offers skills training, professional certificates, language learning, and college degrees

3.2M
Students reached globally through Amazon Future Engineer, including more than 1.9 million in the U.S.

33.6K
Microloans granted by the Whole Planet Foundation and donors

$3.3B
Spent with 375 certified diverse suppliers

$14M
Awarded in cloud credits to approximately 90 health-equity-focused organizations globally since 2021

$1.6B
Invested to preserve or create affordable homes across Washington state's Puget Sound region; Washington, D.C., and Arlington, Virginia; and Nashville, Tennessee

13M
People supported with free cloud computing skills training since 2020

50+
Countries participated in Amazon's first Global Month of Volunteering

828K+
Students from primarily low-income families in India reached through the Amazon Future Engineer program across 5,000 government schools

Goals Summary

Performance Key

Making Progress | Achieved

Goal	2022 Progress	Status
Carbon[1]		
Reach net-zero carbon emissions across Amazon by 2040.	71.27M metric tons CO_2e* 93.7 gCO_2e/$GMS	→
Through The Climate Pledge, inspire and empower others to join us on a mission to reach net-zero carbon emissions by 2040.	396 signatories	→
100,000 Rivian electric delivery vans on the road by 2030.	2,600+ Rivians	→
10,000 electric vehicles (EVs) in our India delivery fleet by 2025.	3,800+ EVs	→
Renewable Energy		
Power our operations with 100% renewable energy by 2030.	90% renewable electricity	→
Invest in wind and solar farm capacity equal to the energy use of Echo, Fire TV, and Ring devices worldwide by 2025.	100% capacity procured	✓
Packaging		
Make Amazon device packaging 100% recyclable by 2023.	Achieved for 79.5% of product launches	→
Waste		
Reduce food waste by 50% across U.S. and Europe operations by 2030.	82M meals donated globally	→
Water		
Achieve water positivity for Amazon Web Services by 2030.	Goal set in 2022	→

Goal	2022 Progress	Status
Diversity, Equity, and Inclusion		
Increase the number of women in executive (director or above) positions in STEM-focused roles globally by at least 35% in 2022.	66% ↑	✓
Hire 100,000 U.S. military veterans and military spouses by 2024.	75,800 veterans and spouses hired†	→
Increase hiring of veterans by at least 23% in the U.S.	12% ↓ 30,500 veterans hired	→‡
Increase hiring of military spouses by at least 15% in the U.S.	5% ↓ 9,600 spouses hired	→‡
Increase representation of Black and Latino/a/x executives (director or above) by at least 35% in the U.S.	Black: 39% ↑	✓
	Latino/a/x: 32% ↑	→‡
Increase representation of Black and Latino/a/x corporate employees by at least 30% in the U.S.	Black: 25% ↑	→‡
	Latino/a/x: 27% ↑	→‡
Training and Career Development		
Invest $1.2 billion to upskill over 300,000 U.S. Amazon employees by 2025.	110K employees	→
Provide 29 million people globally with free skills training by 2025.	13M people	→
Community Impact		
Deliver $2 billion to preserve and create more than 20,000 affordable homes in three communities where we have a high concentration of employees: Washington state's Puget Sound region; Washington, D.C., and Arlington, Virginia; and Nashville, Tennessee.	$1.6B committed	→

* Carbon dioxide equivalent.

† Progress from July 2021 through December 2022.

‡ Incremental hiring was slower the second half of 2022, which impacted our overall hiring rates and progress toward our representation goals.

Sustainability

Becoming a more sustainable business requires a defined, multifaceted approach—one that considers and addresses both environmental and social impacts. We are working to scale and collaborate with others to reduce emissions, waste, and water consumption while innovating to optimize packaging and product performance. Through it all, we seek to act in ways that respect the human rights of people throughout our supply chain.

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Denise Hugo, Senior Renewable Energy Program Manager, led the development of Amazon's off-site solar project in Alcalá de Guadaíra, Spain.

Our Sustainability Approach

We put our customers at the heart of everything we do and relentlessly innovate to meet their needs, enrich their lives, and make every day better. With our mission to be Earth's most customer-centric company comes an innate aspiration to address the environmental and social challenges our customers and communities face—from the impacts of climate change to social inequity. While these issues are increasingly complex, urgent, and interconnected, we believe in the potential for solutions driven by ingenuity and collaborative action.

As an organization serving global communities, we have a broad responsibility to mitigate the impacts of our business, while helping to address the environmental and social challenges we collectively face. We use our scale and culture of innovation to help create a more sustainable future for all.

Driving Climate Solutions

We aim to reach net-zero carbon emissions by 2040 by investing in renewable energy, scaling solutions across our operations, and collaborating with partners to broaden our impact.

Carbon
Renewable Energy

Reducing Waste and Packaging

We continually innovate the processes and materials we use to eliminate waste and increase recyclability.

Packaging
Waste and Circularity

Protecting Natural Resources

We strive to use natural resources in a responsible way across our business and supply chain, while investing in conservation and restoration initiatives.

Water

Advancing Human Rights

We promote the dignity and fundamental rights of the people connected to our business around the world.

Human Rights
Responsible Supply Chain

Innovating Our Products and Services

We invent, develop, and deliver products and services that help our customers on their sustainability journeys.

Product Sustainability

Carbon

The science is clear: to avoid the most severe impacts of climate change, humanity needs to reduce emissions quickly. That's why we co-founded The Climate Pledge, a goal to be net-zero carbon by 2040—10 years ahead of the Paris Agreement.

Goals

Goal
Achieve net-zero carbon emissions by 2040—10 years ahead of the Paris Agreement

Progress

0.4%
Decrease in absolute carbon emissions, as year-on-year net sales grew 9%

7%
Decrease in carbon intensity. Carbon intensity measures emissions growth against the growth of the business

Rivian electric delivery van on the road.

Goal
100,000 Rivian electric delivery vans on the road by 2030

Progress

2,600+
Rivians on the road in North America

Goal
10,000 electric vehicles (EVs) in our India delivery fleet by 2025

Progress

3,800+
EVs in Amazon's India delivery fleet

9,000+
Total EVs in Amazon's global delivery fleet

Actions

90%
Electricity consumed by Amazon attributable to renewable energy sources, up from 85% in 2021

29%
Reduction in Scope 2 emissions from purchased electricity

7
New companies invested in through The Climate Pledge Fund to develop breakthrough low-carbon technologies to help transform the industry

145M
Packages delivered by EVs in the U.S. and Europe

111
New signatories of The Climate Pledge

Our Approach

At Amazon, we take on grand challenges, make big bets, and invent on behalf of customers. That's exactly how we approach our carbon-emissions reduction: by making a big bet to reach net-zero carbon 10 years ahead of the Paris Agreement, then inventing new approaches across our business that will help us get there—all while maintaining the speed, convenience, and reliability that customers expect from Amazon.

These are incredibly hard challenges. Many of the solutions required to achieve global decarbonization don't exist yet. And the challenges are also made more complex by the fact that—thanks to strong customer demand—we are a business that continues to grow. Meeting the needs of our customers while simultaneously reducing our impact will take time, along with invention and collaboration from all areas of our company. Teams across every part of Amazon have a decarbonization strategy as part of their long-term organizational plan. We hold ourselves accountable through goal setting and regular reporting. We are investing in breakthrough technology, including promising early-stage decarbonization technology that we back through our $2 billion Climate Pledge Fund.

We cannot do this alone. We need governments around the world to work together with us as we engage in climate policy to drive decarbonization at scale. We also need the support of our suppliers and other businesses, which is why we are building a cross-sector community of companies, organizations, individuals, and partners through The Climate Pledge. In 2022, we were joined by 111 new signatories, including Hewlett Packard Enterprise, Maersk, SAP, and PwC. They join a community of signatories totaling more than 390 at the end of 2022, all committed to reaching net-zero carbon by 2040, which will have a significant positive impact on the planet. We take inspiration from the progress these companies have made and hope to inspire others with Amazon's efforts to accelerate decarbonization with a global, collective approach.

As we work together on decarbonizing entire industries, it's difficult to reduce or eliminate emissions in certain areas, because sufficient low-carbon technologies do not exist at scale. But we are not waiting. We are working with industry groups to find solutions for those hard-to-abate emissions, such as from airfreight and cargo shipping, and we are excited about what's ahead.

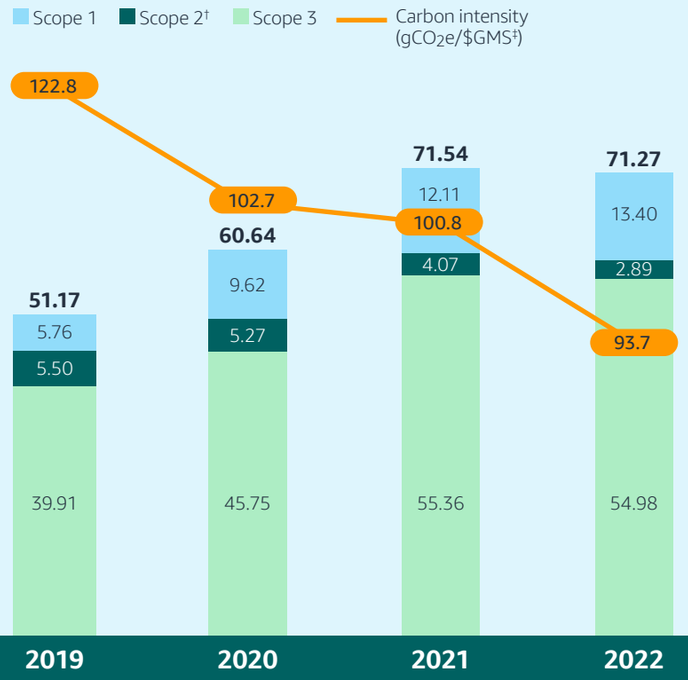
The Spheres at our headquarters in Seattle, Washington.

Our Approach for Net-Zero Carbon Emissions by 2040

We are committed to reaching net-zero carbon emissions in the next 17 years. To get there, we have set interim goals, identified key areas of our business for decarbonization, and identified levers and accelerators to help us get there.

Our Focus Areas	Delivery and logistics	Building construction and operations	Servers and hardware	Packaging	Products and services
How We Will Get There	Choosing lower-carbon alternatives	Transitioning to renewable energy	Engaging suppliers	Driving efficiency	Neutralizing carbon
Accelerating Our Efforts	Investing in breakthrough technology	Decarbonizing through policy change	Accelerating cross-sector collaboration through The Climate Pledge	Engaging in key partnerships	

Amazon's Carbon Footprint (MMT CO_2e*)



Invest in wind and solar farm capacity equal to the energy use of Echo, Fire TV, and Ring devices worldwide by 2025

We are on a path to power our operations with **100% renewable energy** by 2025, five years ahead of our 2030 goal

10,000 electric vehicles in our India delivery fleet by 2025

Climate Pledge Fund: A $2 billion venture investment program supporting the development of sustainable technologies and services

Right Now Climate Fund: A $100 million fund for nature-based solutions to restore and conserve forests, wetlands, and grasslands around the world

100,000 Rivian electric delivery vans on the road by 2030

Net-Zero Carbon Emissions

Reach net-zero carbon across Amazon by 2040, **10 years ahead of the Paris Agreement**

Through **The Climate Pledge**, inspire and empower others to join us on a mission to **reach net-zero carbon by 2040**

2025 2030 2040

* Million metric tons carbon dioxide equivalent.
† Scope 2 and 3 carbon emissions are calculated using a market-based method.
‡ Grams of carbon dioxide equivalent per dollar of gross merchandise sales.

Our Progress

Amazon's Carbon Footprint

In 2022, our absolute carbon emissions decreased by 0.4%, even as our year-over-year net sales grew 9%. We achieved this in large part by improving efficiency across our business and continuing our investment in renewable energy. In fact, in 2022, we announced that we grew our renewable energy capacity by 8 gigawatts, which was a record for the most announced by a company in a single year and made us the world's largest corporate purchaser of renewable energy for the third year in a row.

Our carbon intensity decreased by 7% from 2021 to 2022, and by 24% since 2019. Over the last four years, our business has consistently become less carbon intensive, which further shows we are decoupling emissions growth from our growth as a business. Carbon intensity measures grams of carbon dioxide equivalent (CO_2e) per dollar of gross merchandise sales (GMS).

Decarbonizing Delivery and Logistics

Unlike many other companies in the worlds of tech and retail, we have a large logistics network. Direct emissions, such as the fuel used by our delivery fleet, are counted in Scope 1 emissions and make up just under one-fifth of our total emissions. In 2022, Scope 1 emissions grew by 11% year-over-year. This was due to business growth, increased transportation via Amazon Logistics rather than third parties, and an improvement in the way we calculate emissions, which follows the latest approaches to science-based corporate accounting of emissions.

We are making great progress in reducing transportation emissions where opportunities exist, such as by investing in electric delivery vehicles. In 2022, we had more than 9,000 of these vehicles in our global fleet, and delivered more than 145 million packages in the U.S. and Europe to customers' doorsteps with them. We have installed thousands of charging points across our facilities in North America and Europe. We deployed e-cargo bikes, scooters, and on-foot deliveries from micromobility hubs, including in Manhattan in New York City, and in 20 cities across Europe, from London and Paris to Marseille and Munich.

We make further reductions by using algorithms to devise the most efficient routes and locating fulfillment centers and delivery stations closer to our customers. Our packaging team devises smaller and lighter packing options, which take up less space to transport and therefore result in fewer emissions. In fact, since 2015, we have reduced the weight of outbound packaging per shipment by 41% on average and avoided more than 2 million tons of packaging material.

To drive down emissions from long-haul trucking, we launched our first electric heavy goods vehicles (eHGVs) in the United Kingdom (UK) and Germany. The trucks can weigh up to 40 metric tons, so the transition relies on the rollout of large-scale charging infrastructure, which also often requires the overhaul of local electricity grids. We are teaming up with eHGV manufacturers to advocate for the changes required.

We are not just using more EVs. We already have more than 15,000 hydrogen-powered forklifts operating at more than 70 fulfillment centers in North America, and in 2022, we signed a deal for enough green hydrogen (which is generated by renewable or low-carbon power) to fuel 40,000 forklifts annually by 2025.

Much harder to decarbonize are airfreight and cargo shipping. This is because the net-zero technologies required to move large volumes of goods over long distances by sea and air do not yet exist at scale, nor do the supporting infrastructure or accounting frameworks. Yet we are determined to accelerate progress. We are active partners in industrywide coalitions,

Amazon's Enterprisewide Carbon Footprint, 2019–2022

Carbon Intensity	2019	2020	2021	**2022**	YoY%
Carbon Intensity (grams of CO_2e per $ of GMS)	**122.8**	**102.7**	**100.8**	**93.7**	**-7%**

Emissions Category (MMT CO_2e)	2019	2020	2021	**2022**	YoY%
Emissions from Direct Operations (Scope 1)	**5.76**	**9.62**	**12.11**	**13.40**	**11%**
Fossil fuels	5.57	9.37	11.89	13.09	10%
Refrigerants	0.19	0.25	0.22	0.31	41%
Emissions from Purchased Electricity (Scope 2)*	**5.50**	**5.27**	**4.07**	**2.89**	**-29%**
Emissions from Indirect Sources (Scope 3)*	**39.91**	**45.75**	**55.36**	**54.98**	**-0.7%**
Corporate purchases and Amazon-branded product emissions (e.g., operating expenses, business travel, and Amazon-branded product manufacturing, use phase, and end-of-life)	15.41	16.70	19.09	21.39	12%
Capital goods (e.g., building construction, servers and other hardware, equipment, vehicles)	8.01	10.52	15.37	12.88	-16%
Other indirect emissions (e.g., third-party transportation, packaging, upstream energy related)	12.44	15.77	18.00	17.42	-3%
Lifecycle emissions from customer trips to Amazon's physical stores	4.05	2.77	2.91	3.29	13%
Amazon's Total Footprint	**51.17**	**60.64**	**71.54**	**71.27**	**-0.4%**

* Scope 2 and 3 carbon emissions are calculated using a market-based method.

| **Learn more** about our carbon methodology.

including Cargo Owners for Zero Emission Vessels (coZEV), which we helped launch, and the Sustainable Aviation Buyers Alliance (SABA), which is focused on increasing investment in sustainable aviation fuel (SAF).

We are optimistic that emissions will substantially fall across the transportation and logistics sectors over the next decade. Electric vehicle production is becoming mainstream. Already, policymakers are encouraging the infrastructure transformation needed to support a new generation of net-zero transportation through measures like the Bipartisan Infrastructure Law and Inflation Reduction Act in the U.S., and the European Commission's Green Deal Industrial Plan, which incentivize investment in clean energy. As these changes take effect, they will translate into lower emissions for all companies that, like Amazon, transport large numbers of items over thousands of miles.

Investing in Renewables

We are proud that our investments in renewable energy, used to power our operations, have resulted in a 29% drop in carbon emissions from purchased electricity (Scope 2). This now accounts for less than 5% of our total reported carbon footprint. In 2022, 90% of electricity consumed by Amazon was attributable to renewable energy sources, and we remain on a path to reach 100% by 2025.

Electricity powers our data centers, fulfillment centers, physical stores, and corporate offices, as well as the EVs that charge at our delivery stations. As a first step, we focus on energy efficiency throughout our operations. We then purchase electricity from renewable energy projects, through on-site solar installations and utility-scale, off-site solar and wind projects. We grew our total number of renewable projects to 401 in 22 countries, with a capacity of more than 20 GW. That's enough capacity to power the equivalent of 5.3 million U.S. homes every year.

Key to making renewable energy more impactful is to find ways of storing it for when the wind isn't blowing or the sun isn't shining. We continue to invest in renewable energy projects that are paired with energy storage. Additionally, in 2022, The Climate Pledge Fund invested in Electric Hydrogen and Sunfire, two promising U.S.- and Europe-based developers of electrolyzers, which convert water into green hydrogen—an energy source that can be stored for future use. It's another example of the investment in innovation that Amazon is known for.

Reducing Our Scope 3 Emissions

Activities that take place beyond our direct operations are reflected in our Scope 3 emissions. In 2022, Scope 3 emissions went down by 0.7%, despite our year-over-year growth.

We saw a decrease in Scope 3 emissions from building construction, leased buildings and equipment, and third-party transportation (as more goods were shipped by Amazon's own logistics providers versus third party providers).

We know that to further drive down emissions, we must ensure those in our supply chain make the operational changes necessary to decarbonize their businesses. To that end, we will update our Supply Chain Standards to require suppliers to share their carbon emissions data with us, including setting goals to reduce emissions as we work together to serve our customers. We will use our size and scale to benefit businesses that are committed to decarbonizing by providing products and tools to both track emissions and help decrease them. And we will continue to look for suppliers that help us achieve our decarbonization vision as we select partners for business opportunities.

Given our success as the world's largest corporate purchaser of renewable energy, we will seek to help select suppliers transition to carbon-free electricity. Our potential for impact across our supply chain is big because it spans building materials, transportation, technical equipment, products, and packaging, and we look forward to having further impact in supply chain decarbonization.

To reduce indirect emissions, it's important to be able to measure them accurately. We support and fund industry partnerships to gather more accurate data, including the Embodied Carbon in Construction Calculator (EC3), which helps measure embodied carbon in buildings, and the Smart Freight Centre's Global Logistics Emissions Council (GLEC) Framework, a globally recognized methodology for measuring freight transportation emissions.

The Road to 2040

Decarbonizing our business requires investment that will not always result in immediate outcomes. Some of the work that we did in 2022 to reduce emissions is not reflected in our emissions figures for 2022, and we may not see its impact for years to come.

Like other large corporates and many signatories to the Pledge, we do not have all the answers today, not least because in many cases the answers do not yet exist or they do exist but are not yet available at scale. We are, however, steadfast in pursuing solutions and working collectively to find the answers and create the demand signals to bring new technologies to scale. We remain focused on reaching net-zero carbon by 2040, a focus we have maintained since we first announced The Climate Pledge in 2019. Through innovation, collaboration, determination, and a promise to deliver the best for our customers, we will achieve our goal, and most importantly, contribute to a future on a healthier planet.

| Turbines generate clean electricity at a utility-scale Amazon wind farm.

The Climate Pledge

The Climate Pledge is a commitment to reach net-zero carbon emissions by 2040. Amazon co-founded The Climate Pledge with Global Optimism in 2019 and became the first company to sign on.

The Climate Pledge brings together the world's top companies to accelerate joint action, cross-sector collaboration, and responsible change. Signatories agree to three areas of action:

- **Regular reporting**: Measure and report on greenhouse gas (GHG) emissions on a regular basis.
- **Carbon elimination:** Implement decarbonization strategies in line with the Paris Agreement through business change and innovations, including efficiency improvements, renewable energy, materials reductions, and other carbon-emission-elimination strategies.
- **Credible offsets**: Neutralize any remaining emissions with additional, quantifiable, real, permanent, and socially beneficial offsets to achieve net-zero annual carbon emissions by 2040.

While each company will take its own path to net zero, signing The Climate Pledge reinforces their commitment to sustainability.

Learn more about The Climate Pledge.

Progress in 2022

As of 2022 year end, The Climate Pledge signatories represent:

396	36	55
Signatories	Countries	Industries

9.3M+	$3.68T
Employees	In global annual revenue

We have set a goal to recruit additional signatories every year. In 2022 alone, 111 companies signed The Climate Pledge. We also facilitated signatory collaboration to tackle hard-to-abate emissions while providing The Climate Pledge community with helpful information and partnerships to drive forward multisectoral decarbonization initiatives.

The Climate Pledge Fund

The Climate Pledge Fund is a $2 billion venture investment program supporting the advancement of sustainable technologies and services that will enable Amazon to meet our net-zero carbon goal. Throughout 2022, The Climate Pledge Fund continued its mission to support companies working on promising decarbonization solutions.

We made new investments in seven companies: Electric Hydrogen, Sunfire, and Verne, which are developing green hydrogen production and storage methods;[2] Moxion Power and Ambient Photonics, which are advancing cleaner energy storage; and Brimstone and Electra, which are working to decarbonize construction. These investments bring our portfolio to 20 total companies as of the end of 2022.

Through The Climate Pledge Fund, we invest in companies—like electric aircraft innovator BETA Technologies—that are developing low-carbon solutions.

Equitably Scaling Climate Tech Solutions

Women-founded companies typically receive a fraction of the total venture capital flowing into climate tech startups.[3] In November 2022, Amazon made a $53 million commitment to help address this gender inequity. This includes a $50 million commitment through The Climate Pledge Fund's new Female Founder Initiative to invest in women-founded and women-led climate tech companies. Amazon also committed $3 million to the U.S. Agency for International Development (USAID) Climate Gender Equity Fund. As a co-founder of The Climate Pledge, Amazon will work with Pledge signatories and other companies to encourage their additional support and corporate investment in the Climate Gender Equity Fund.

In 2022, Amazon became a founding member of the Climate Resolute Coalition, a multistakeholder organization focused on advancing women's economic empowerment and climate solutions in global supply chains. We also work with various other organizations to enhance equitable opportunities for climate tech entrepreneurs, including Greentown Labs and Elemental Excelerator.

Amazon's Delivery and Logistics Network

We rely on a complex transportation network to get products from manufacturers and sellers to customers around the globe. Our logistics network spans every step of the journey—from global transportation to last mile delivery between delivery station and customer. To deliver packages as quickly and efficiently as possible, our logistics network uses different modes of transportation, including ships, planes, freight trains, trucks, vans, and bikes.

As well as transporting products in a safe, timely, and efficient manner, we are decarbonizing transportation across our business by:

- Increasing fleet efficiency across inbound transportation, middle mile, and last mile
- Scaling use of EVs and alternative-fuel vehicles
- Increasing use of low-carbon fuels
- Partnering on initiatives to decarbonize the wider transportation industry

While emerging technologies in sustainable transportation will continue to scale in the coming years, the most effective way to reduce our transportation-related emissions is through improved fulfillment network efficiencies and supply chain optimization. Fulfilling items inventoried as close to our customers as possible reduces the distances packages travel to reach customers, particularly in middle mile transportation, where long-haul trucking is a large emissions source. Shorter routes also make our network more conducive to introducing EVs and other lower-impact transportation modes in the long term.

In addition to closing the distance between fulfillment and customer, we are working to reduce emissions per shipped unit by increasing the number of customer orders distributed per trip. For example, we use machine learning algorithms for each order to determine the best packaging solution to eliminate empty space in packages. Computer vision and natural language processing guide our system to pinpoint the optimal packaging type for each item—from bag to box—depending on the level of protection needed. Where possible, we use lightweight packaging by prioritizing flexible paper bags and envelopes, which are up to 90% lighter than similar-sized, rigid corrugate boxes.

We also look to increase the number of items per order, where relevant, encouraging customers to consolidate items into fewer orders by choosing an "Amazon Day" for delivery to minimize the emissions associated with fulfilling their order.

Inbound Transportation: The first transportation leg, used for transporting shipments across international borders.

Middle Mile: The intermediate transportation leg, where shipments are moved between Amazon facilities.

Last Mile: The final transportation leg, where packages are delivered to customers.

Products are produced and assembled.

Warehouse operation consolidates loads without intermediate storage.

Warehouses store products and serve as distribution centers for associates to pick, pack, and ship orders.

Centers sort and consolidate packages to deliver for shipment.

Packages are routed to customers through local post offices and delivery stations.

Packages are delivered to the customer's door.

Inbound Transportation

Inbound transportation teams aim to optimize the speed and cost of cross-border transportation so it's as simple, fast, and reliable as domestic transportation.

Amazon is increasing the use of ocean freight for transoceanic transportation, and reducing airfreight when possible. As an added benefit, ocean transportation has a lower carbon intensity than air transportation, and we continue to reduce the emissions related to ocean freight through the use of biofuels.[4]

Compared to road transportation, rail and sea transportation are more carbon-efficient. During 2022, in North America and Europe, we increased our total rail load volume; we continue to grow it at an accelerated rate, which will help meet our net-zero-carbon goals.

Middle Mile

Middle mile transportation generally starts when packages arrive at an Amazon facility, such as a cross dock,[5] and includes the journey between fulfillment centers, sort centers, and delivery stations. While some trips may be completed by air or train freight, middle mile transportation is usually completed by truck.

Trucking is a challenging area to decarbonize, particularly considering long-haul distances and the requirements for high-power EV charging infrastructure across transportation routes. There is currently no single solution that can be scaled for decarbonizing middle mile trucking. To help address this challenge, we are experimenting with lower-carbon options, such as trucks powered by renewable natural gas (RNG),[6] battery-electric trucks, and hydrogen-powered trucks.

In 2022, we piloted a number of electric delivery trucks across North America and Europe, with plans for more in 2023, and we are developing charging infrastructure. We also partner with manufacturers to test and validate new EV models before scaling the technology. Notably, we have introduced 20 fully electric heavy goods vehicles (eHGVs) in Germany, which will replace diesel-fueled road miles. Five similar vehicles have been added to our UK fleet. In 2022, we joined CALSTART, and we are collaborating on the Electric Truck Research and Utilization Center project to advance high-powered charging infrastructure along key freight corridors in California and beyond.

Low-Carbon Fuel Technologies

We are investing in interim ways to reduce the environmental impact of our middle mile truck fleet, including existing lower-emission options powered by RNG. We are also investing in future solutions, like green steel[7] for manufacturing vehicles, as well as renewably generated green hydrogen.

Compressed natural gas (CNG) trucks, especially when powered by RNG created from waste stocks, provide an interim emissions-reduction technology while EV and hydrogen fuel cell trucks continue to develop. We have procured millions of gallons of RNG to power CNG trucks in our North American fleet, reducing our reliance on fossil-fuel-based alternatives. We currently have 3,289 CNG trucks in North America and are partnering with other companies to launch fueling stations to support them.

In August, we also announced a procurement agreement with Plug Power. This partnership will supply Amazon with 10,950 tons of green hydrogen per year—enough to power 40,000 forklifts annually—for transportation and building operations, starting in 2025.

Last Mile

Last mile transportation refers to the final part of the journey, when products are transported from a post office or delivery station to the customer. Traditionally, these trips have been made by gas-powered internal combustion engine vehicles. While these are still common across the industry, we are working to decarbonize our own last mile fleet by utilizing lower-emission options, including EVs, electric cargo bikes (e-bikes), and on-foot deliveries.

We are expanding our low-carbon electric delivery fleet with thousands of EVs. At the end of 2022, more than 2,600 Rivian electric delivery vans were on the road in the U.S., and we aim to have 100,000 on the road by 2030. Throughout 2022, we had more than 9,000 EVs in our fleet and delivered 145 million packages to customers via EV across the U.S. and Europe. We also scaled EV adoption in Indian operations, deploying over 3,800 EVs in our last mile delivery fleet, as well as 158 middle-mile EVs, by the end of 2022.

In 2022, we announced plans to invest over €1 billion to double our European zero-emissions fleet for middle and last mile deliveries over the next five years.

Did You Know?

Amazon offers Prime members fast delivery options, including Same-Day and One-Day Delivery. We also offer the Amazon Day delivery option, which gives Prime members the ability to choose a designated day of the week to receive their orders. In 2022, Amazon Day saved 115 million boxes.

Mitigating Emissions With Micromobility Solutions

In Europe, we have launched micromobility hubs in more than 20 cities to enable shorter deliveries on foot or by e-bike. In the UK specifically, we launched e-bikes in Manchester and London. Similar hubs have been installed across France and Italy, with further micromobility solutions planned.

In the U.S., we continue to improve grocery micromobility delivery operations in New York. Our efforts to deliver grocery orders on foot or via e-bike began in 2019 and have since expanded to cover over 1.6 million orders (over 9.1 million packages) in 2022. This was enabled, in part, by stocking inventory closer to customers. During 2022, we also introduced new, higher-payload e-bike trailers designed to carry heavier packages. These reduce operational costs by converting sites where deliveries are made on foot to use e-bikes and allowing more deliveries to be completed per bike route. We plan to deploy next-generation micromobility equipment in 2023.

Amazon CEO, Andy Jassy, with a new electric delivery vehicle at Amazon's Seattle headquarters.

Partnering for Decarbonized Transportation

Decarbonizing our transportation business will require cross-company partnerships, which is why we seek to participate in multistakeholder initiatives to shift the industry toward lower-carbon solutions. For our transportation decarbonization partnerships, we leverage two engagement platforms: the Sustainable Freight Buyers Alliance (SFBA) and the Organisation for Economic Co-operation and Development (OECD) International Transport Forum.

In 2022, we continued to support the Smart Freight Centre, with a focus on identifying and building partnerships that can accelerate transportation decarbonization. Amazon is also playing an active role in several industry initiatives and government partnerships, including the coZEV network, the First Movers Coalition, and the Clean Energy Demand Initiative.

Air

Airfreight is one of the modes of transportation we use, and SAF is one solution for reducing associated lifecycle emissions. However, SAF represents less than 0.1% of global aviation fuel, because it is still cost prohibitive for most companies.[8] During the 2022 United Nations Climate Change Conference (COP27), SABA announced a digital SAF certificate registry that aims to increase transparency for emissions-reduction claims and accelerate SAF deployment. As a founding member of SABA, Amazon played a key role in developing the registry, which will launch later this year.

Ocean

To reduce our ocean-freight-related transportation emissions, ships used to transport goods must transition to using zero-emission fuels. In early 2023, we co-founded the Zero Emission Maritime Buyers Alliance (ZEMBA) together with the Aspen Institute, Patagonia, and Tchibo. In March 2023, Inter IKEA Group also joined the alliance. Through ZEMBA, freight buyers will accelerate commercial deployment of zero-emission shipping, enable economies of scale, and minimize maritime emissions, helping to get zero-emission ships on the water by the mid-2020s.

Land

Heavy-duty truck freight is another key, yet emissions-intensive, component of most delivery networks, and one we are working to decarbonize through scaling the use of EVs. In December 2022, we co-founded SFBA, a group committed to decarbonizing freight operations. Members are working to increase demand for medium- and heavy-duty battery EVs and charging infrastructure, as well as align on models for fleet electrification.

Building Construction and Operations

We aspire to have the most sustainable real estate portfolio in the world. Today, our portfolio comprises thousands of facilities in 66 countries, including operations buildings (fulfillment centers, delivery stations, warehouses, and sort centers), corporate offices, data centers, and physical retail stores. We aim to reduce emissions across our portfolio through increased energy efficiency, expanding our use of renewable energy, and reducing embodied carbon in construction by using lower-emissions materials.

We use an Enterprise Building Management System (EBMS) to manage facility energy use, seeking to use energy as efficiently as possible to reduce associated emissions. By the end of 2022, our EBMS was active in more than 1,000 facilities globally. This standardized platform controls various building systems and has alarms to proactively alert site teams to equipment failures. In 2023, we plan to expand EBMS implementation across our global facilities to help further reduce emissions.

Corporate Offices

Throughout 2022, our Global Real Estate and Facilities team made progress in establishing foundational practices for building and maintaining sustainable buildings. Guidelines were developed and shared with internal teams for integrating more-sustainable practices across leasing, design, construction, and operations.

We also gathered crucial data to inform building-specific carbon-reduction roadmaps and 2023 energy-reduction projects. Using this data, we plan to build a tool to enhance our understanding of current energy and carbon efficiencies and to establish energy performance targets.

In response to the energy shortage in Europe, we quickly implemented energy-reduction measures that we plan to scale globally to enhance efficiency across our corporate buildings.

Physical Stores

In addition to designing new sites with sustainability in mind, we upgraded existing stores with technologies that deliver greater efficiency and carbon emissions savings. Physical stores include those for Whole Foods Market, Amazon Fresh, and Amazon Go.

International Living Future Institute Certification

Several of our Amazon Go stores are seeking Zero Carbon Certification (ZCC) with the International Living Future Institute (ILFI). The certification requires locations to lower energy use, eliminate on-site gas combustion, and build using lower-carbon materials. In addition to demonstrating our commitment to The Climate Pledge, these certified sites serve as test beds for technologies that we can scale across our business.

The thousands of panes of glass in The Spheres are designed to maximize light exposure for plants while maintaining a consistent temperature inside.

Increased Energy Efficiency

By May 2022, Whole Foods Market improved energy efficiency performance by 21% from a 2010 baseline, achieving the U.S. Department of Energy Better Buildings Challenge goal two years ahead of schedule. These improvements were driven, in part, by investing in alternative refrigerants with lower global warming potential (GWP); installing energy-efficient heating, ventilation, and air conditioning (HVAC) systems; implementing retrofit projects; and launching an energy-awareness program for store operations.

Amazon Fresh stores in the U.S. and EU also made strides on energy efficiency throughout 2022, using efficient lighting as standard in all buildings and expanding the use of doors on in-store refrigerated cases.

Natural Refrigeration

Several retail locations are piloting natural refrigerants with near-zero GWP, as well as low-GWP refrigeration technologies.[9] As of the end of 2022, 45 Whole Foods Market stores had installed low-GWP refrigeration systems. An additional 65 stores have been retrofitted to use next-generation Solstice N40 refrigerant, which has a GWP approximately 68% lower than legacy hydrofluorocarbon refrigerants. All UK Amazon Fresh stores operate with either natural or low-GWP systems.

Reducing Natural Gas Use

We are introducing technologies to electrify systems that traditionally run on natural gas, including kitchen equipment, water heaters, and HVAC systems. Amazon Fresh stores in the UK have moved to fully electric systems, while in the U.S., we are piloting fully electric kitchens in several locations. Amazon Go has expanded electric HVAC equipment in Washington state and California.

Fulfillment, Logistics, and Distribution Centers

Alongside physical stores, a number of fulfillment, logistics, and distribution sites are pursuing ZCC status through ILFI and ensuring they have access to tools and guidance that help them reduce carbon emissions.

Our efforts to reduce Scope 1 and Scope 2 emissions begin with increasing data collection across all business areas. Throughout 2022, Amazon Transportation Services, Amazon Logistics, Amazon Fresh fulfillment and distribution centers, and Customer Fulfillment in both North America and Europe enhanced data collection to help identify opportunities for greater efficiency in new and existing buildings. In addition to efficiency improvements, we reduce building-related emissions through our corporate renewable power program. As of the end of 2022, 237 Amazon facilities have on-site solar.

Learn more about our renewable energy progress.

We are also focused on increasing energy efficiency in existing sites through lighting retrofits, EBMS retrofits, and rooftop HVAC unit replacements. Through lighting retrofits, we have saved 1 billion kilowatt-hours (kWh) of energy and avoided 709,000 metric tons of CO_2e over the last seven years. The upgrades included converting all non-LED lamps to high-efficiency LED fixtures with dimming controls.

Various business units are working to ensure our baseline building design standards are optimized for lower-carbon construction. For example, we developed building design strategies that enable emissions reductions for Amazon Customer Fulfillment, Amazon Transportation Services, and Amazon Logistics buildings.

Addressing Hard-to-Abate Carbon Emissions

We look to address our largest remaining source of buildings emissions—embodied carbon,[10] primarily in the concrete and steel used in construction. We use the Embodied Carbon in Construction Calculator (EC3) tool to track embodied carbon in our building projects. In 2022, we tracked embodied carbon from more than 400 building projects through EC3.

Throughout 2022, we partnered with various organizations to improve embodied carbon reporting. Together with Introba, we developed a methodology for understanding and quantifying embodied carbon in material handling and mechanical, electrical, and plumbing equipment. Additionally, we collaborated with the Chartered Institution of Building Services Engineers to develop guidance to measure embodied carbon in technologies for the logistics sector.

We launched a program to find and validate transformational technologies as lower-cost alternatives to carbon credits[11] in the most difficult-to-abate areas of our building portfolio. We have also introduced a Technical Review Committee to assess and recommend promising technologies to improve resource planning.

The interior of Metropolitan Park in Arlington, Virginia—the first phase of Amazon's HQ2, which opened in May 2023.

Making History with the World's First ILFI Zero Carbon Certified Fulfillment Center

One of Amazon's newest Same-Day fulfillment centers in Sacramento, California, is set to make history as the first fulfillment facility globally to achieve ZCC status.

The Same-Day site was built using more-sustainable building materials like lower-carbon concrete, a fully electrified HVAC system, and high-efficiency material-handling equipment. The building is solar-ready and designed to have a rooftop solar array that can potentially generate as much as 80% of the facility's annual electricity needs, with the remaining balance to be supported by Amazon's off-site renewable energy projects.

Packages on a conveyor belt in Amazon's Same-Day site in Sacramento, California.

Amazon Web Services

With millions of users globally, Amazon Web Services (AWS) is the world's most comprehensive, broadly adopted cloud offering.[12] To continue delivering optimal service while building a more sustainable business, AWS is designing data centers—including our servers and hardware—for efficiency, resiliency, and a lower carbon footprint.

Energy Efficiency

Research shows that in North America, AWS can lower customers' workload carbon footprints by nearly 80% compared to on-premises computing workloads, and up to 96% once AWS is powered with 100% renewable energy—a target we are on a path to meet by 2025.[13]

When servers are in use, they produce heat. If they produce too much heat, it can impact their performance and lifespan. Air conditioning systems can be energy-inefficient, which is why we look to maximize use of natural air flow to lower server temperatures and energy use requirements. When we design AWS data centers, particularly our data halls, we use models that examine how air moves through spaces. We then create a digital representation of this movement to determine physical properties such as temperature, pressure, and velocity at any location throughout the data hall. This allows us to fully understand how data centers will perform before they're even built, enabling optimization for higher system reliability and energy efficiency.

Learn more about how we optimize data center cooling systems.

One of the most visible ways we are innovating for power efficiency is our investment in purpose-built AWS machine learning chips. Our third-generation Arm-based chip, AWS Graviton3, is more energy-efficient, as Graviton3-based Elastic Compute Cloud instances use up to 60% less energy for the same performance than comparable Amazon EC2 instances. In 2022, we launched AWS Trainium, a high-performance machine learning chip designed to reduce the time and cost of training generative AI models—cutting training time for some models from months to hours. This, in turn, means building new models requires less money and power, with potential cost savings of up to 62% and energy-consumption reductions of 29%, than comparable instances. Inferentia is our most power-efficient machine learning inference chip. Our Inferentia machine learning chip is up to 54% more energy-efficient and can reduce costs by up to 90% against comparable instances.

An AWS data center in Northern Virginia.

Embodied Carbon

AWS strives to reduce embodied carbon associated with concrete and steel, the two most carbon-intensive materials used to build our data centers. This includes carbon emitted during extraction, manufacturing, and transportation of materials to data center construction sites.

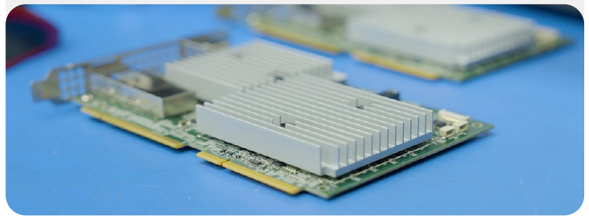
We are working with various suppliers on lower-carbon concrete options. For example, in Northern Virginia, AWS worked with building material provider Holcim to procure ECOPact concrete for several data centers. The concrete mix reduces carbon emissions by nearly 40% compared to standard concrete. AWS worked with American Rock Products (ARP), a CRH Company, to develop a more sustainable concrete mix for data centers across northeastern Oregon. ARP completed Environmental Product Declarations, which summarize environmental impacts across the concrete's lifecycle, for all products at their plants. Globally in 2022, we completed the construction of 16 data centers using lower-carbon concrete and 10 data centers using lower-carbon steel. We expect these numbers to grow considerably in 2023.

We are also focused on reducing embodied emissions associated with the manufacturing of AWS hardware, including silicon-based devices like processors and solid-state drives. As these emissions are primarily from material extraction and product manufacturing, the path to decarbonizing chip production involves all parts of the lifecycle. To address this, we are working with suppliers to improve their energy efficiency and power their operations with more renewable energy.

Keeping Technologies in Use Longer

We are reducing emissions related to server use and networking equipment by increasing server lifespan. This includes refining software to run more efficiently, subsequently lowering stress on hardware and extending its useful life. In 2022, we extended AWS server life from four years to five and networking equipment life from five years to six. To support these efforts, AWS has a robust maintenance and repair program designed to increase component reuse and further reduce carbon emissions and waste across our supply chain.

To help prevent our equipment from ending up in landfills and avoid associated emissions, we are investing in responsible end-of-life management systems. AWS uses reverse logistics hubs to evaluate and reuse electronic equipment in our global data center fleet. These hubs help us consolidate, assess, and recirculate functional equipment back into our inventory. When we no longer have use for equipment, we remove all customer data and sell the equipment on the secondary market for reuse or work with a network of experienced vendors to recycle parts.



To extend the useful life of data center hardware, AWS sends all functional, sanitized, retired server racks and components to its reverse logistics hubs.

Carbon Neutralization

The Intergovernmental Panel on Climate Change (IPCC) has made clear that significant carbon emissions from several sectors of the economy will not be fully abated by 2050.[14] Even with aggressive decarbonization efforts, many companies will need to neutralize some GHG emissions that cannot be eliminated to achieve net-zero carbon.

Carbon neutralization represents an opportunity for us to help reduce emissions and stabilize our changing climate. We are focused on three global transformations: halting tropical rainforest loss, restoring degraded land, and scaling technologies that capture carbon emissions.

Learn more about how, in 2022, Amazon analyzed and invested in various promising carbon-removal technologies through The Climate Pledge Fund.

Protecting the World's Tropical Rainforests

Tropical deforestation contributes approximately one-fifth of global emissions.[15] Ending deforestation will require more effective government policy, local stakeholder collaboration, and new pathways for sustainable economic development in tropical forest regions.

In 2021, Amazon helped create the Lowering Emissions by Accelerating Forest finance (LEAF) Coalition, which has mobilized over $1 billion in corporate and government finance to protect tropical rainforests around the world. In 2022, during COP27, four Brazilian states signed Letters of Intent to participate in the Coalition, bringing participating tropical forest jurisdictions to nine.

Restoring Degraded Landscapes

Restoring landscapes has the potential to remove billions of tons of carbon emissions while improving local livelihoods. Amazon is focused specifically on advancing restoration efforts by the world's smallholder farmers through programs like the Agroforestry and Restoration Accelerator in Brazil. In 2022, we also advanced development of technological tools, scientific knowledge, and business models to support reforestation and sustainable agroforestry at scale.

Funding Science and Education for Blue Carbon

With support from Amazon, Conservation International launched the International Blue Carbon Institute at COP27. Based in Singapore, the institute's mission is to scale action for the protection and restoration of blue carbon ecosystems through innovative research, capacity building, and collaboration. Blue carbon ecosystems are coastal and marine ecosystems that sequester large quantities of carbon in plants and sediments, and can have a pivotal role in climate mitigation.

Learn more about how we are working in communities globally to protect and restore natural spaces.

Decarbonizing Through Policy

Achieving global decarbonization will require robust policies and interventions to reduce the cost gap between established and emerging low-carbon technologies. We engage with policymakers and other decision-makers to advance and to provide incentives for decarbonization. This includes policies that advance zero-emission fuels, scale clean energy, modernize the grid, and invest in new technologies needed across multiple industries. We have also supported climate disclosure frameworks to assure data is useful for our customers.

In 2022, we joined the Low Carbon Fuels Coalition to drive adoption of more low-carbon fuel standards.

Learn more about Amazon's engagement in policy advancement.

Engaging Suppliers that Make Amazon Products

To meet our net-zero carbon goal, we engage suppliers in our global product and device supply chains to set goals that support decarbonizing their own operations and work with them on initiatives to reduce their GHG emissions.

In 2022, we received commitments from 28 suppliers to work with us on decarbonization. We also helped six suppliers of Amazon devices develop renewable energy implementation plans. We are continuing to expand this program in 2023.

Next year, we will continue to work directly with our suppliers, and we will update our Supply Chain Standards to require regular reporting and emissions goal setting. We will also use our scale, investment, and innovation to date to provide our suppliers with products and tools that will help them reach their goals—whether that's transitioning to renewable energy or having more access to sustainable materials.

Learn more about how we are reducing the carbon impact of our devices.

Looking Forward

Reaching net-zero carbon emissions by 2040 won't be easy, and we know we can only get there with significant collaboration. We will look to decarbonize across our business, improving data quality and collection to better understand our existing carbon footprint and where we can improve. Additionally, we will continue to engage external partners—whether expert coalitions or our diverse network of suppliers—on efforts to drive down emissions beyond our immediate sphere of influence.

We work to create devices our customers love, while also reducing the impact of producing and using those devices.

Renewable Energy

Transitioning to renewable energy is one of the most impactful ways to lower emissions. With 401 renewable energy projects representing over 20 gigawatts (GW) of clean energy capacity announced as of January 2023, Amazon is the world's largest corporate purchaser of renewable energy for the third year in a row. We are also on a path to powering our operations with 100% renewable energy by 2025—five years ahead of our original 2030 target—and we are asking our suppliers to switch to renewable energy as well. To reach this target, we want 100% of the electricity that we use to be attributable to renewable energy sources.

Goals

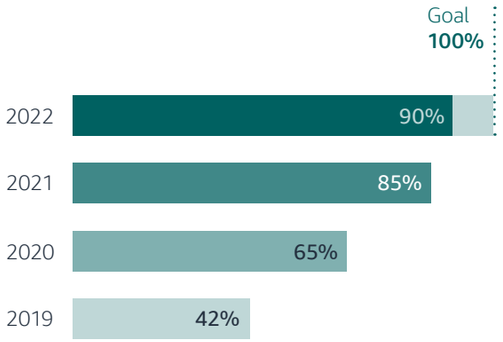
Goal

On a path to power our operations with 100% renewable energy by 2025—five years ahead of our original target of 2030[16]

Progress

90%

Of the electricity consumed by Amazon was attributable to renewable energy sources, up from 85% in 2021



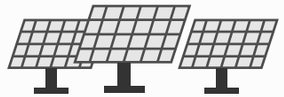
Actions

445

Megawatts (MW) of energy storage capacity as of 2022 year-end

401

Renewable energy projects across 22 countries, comprising 164 wind farms and solar farms, and 237 rooftop solar projects on Amazon facilities



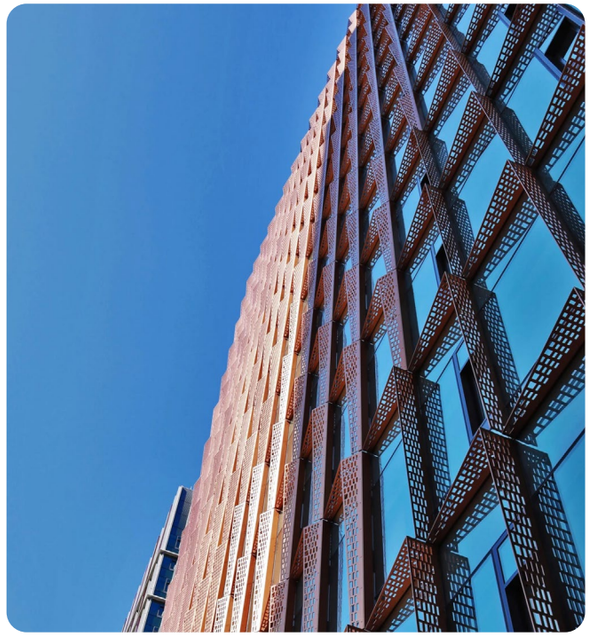
#1

World's largest corporate purchaser of renewable energy for the third year in a row

Wind turbines in Texas.

Our Approach

To achieve our renewable energy goal, we aim for 100% of the electricity we use to be attributable to renewable electricity sources. This goal covers all Amazon businesses, including operations facilities, corporate offices, physical stores, AWS data centers, and all financially integrated subsidiaries that support hundreds of millions of customers globally.



Sunshades on the exterior of Met Park improve energy efficiency by reducing direct sunlight into the building, saving cooling energy and decreasing glare.

By scaling renewable energy, we aim to make Amazon a more resilient, sustainable business and drive a global transition to cleaner energy. We contract renewable power from utility-scale wind and solar projects that add clean energy to the grid. Many of these projects are enabled by long-term contracts such as power purchase agreements (PPAs) for large projects in the same energy grids as our electricity use. Energy load forecasts help guide procurement decisions.

Increasing renewable energy use requires a targeted, multifaceted approach, and we are taking action to achieve our goal in the following ways:

- **Energy efficiency:** We innovate to continually increase the energy efficiency of our operations and devices.
- **Scaling renewable energy:** We are investing in renewables both on-site (as rooftop solar on buildings we operate) and off-site (through PPAs) through investing in new, utility-scale wind and solar projects. We also participate in green tariff programs with utilities and pursue new renewable projects through competitive site energy contracts.
- **Energy storage solutions:** We are expanding renewable energy storage capacity to help support grid transitions to 100% renewables.
- **Energy optimization:** We are improving data collection and analysis to better understand operational energy requirements, informing our renewable procurement decisions and energy-optimization initiatives.
- **Advocating for renewable energy solutions:** We engage in public policy that advances access to and the expansion of clean energy for Amazon and our customers.

Our Progress

Scaling Renewable Energy

In 2022, 90% of electricity consumed by Amazon was attributable to renewable energy sources, up from 85% in 2021. We grew our renewables portfolio to over 20 GW of clean energy capacity, a 67% increase from our global 2021 portfolio of just over 12 GW. Once operational, these contracted renewable energy projects will account for 56,881 gigawatt-hours (GWh) of Amazon's electricity use, enough to power 5.3 million U.S. homes annually. With these continued investments, Amazon set a new corporate record for the most renewable energy announced by a single company in one year, and we remain the largest corporate buyer of renewable energy for the third year in a row.

As a part of our broader commitment to power our operations with 100% renewable energy, we continue to scale up our use of renewable electricity within AWS. In 2022, the electricity consumed in the following 19 AWS regions was attributable to 100% renewable energy: U.S. East (Northern Virginia), GovCloud (U.S. East), U.S. East (Ohio), U.S. West (Oregon), GovCloud (U.S. West), U.S. West (Northern California), Canada (Central), Europe (Ireland), Europe (Frankfurt), Europe (London), Europe (Milan), Europe (Paris), Europe (Stockholm), Europe (Spain), Europe (Zurich), Asia-Pacific (Mumbai), Asia-Pacific (Hyderabad), China (Beijing), and China (Ningxia).

On-Site Solar Projects

In 2022, three new on-site rooftop solar projects became operational at Japanese fulfillment centers, increasing the number of facilities with on-site solar in Japan to six. In October 2022, we opened our first stand-alone Australian sort center in Melbourne, which features 3,078 on-site solar panels with capacity to meet up to 80% of the site's electricity needs. We also announced on-site solar projects in Canada, France, and Germany throughout the year.

Utility-Scale Projects

During 2022, we announced 133 new renewable energy projects that are expected to come online over the next five years, bringing our total announced projects to 401 as of January 2023. Notably, for off-site projects, we announced our first South American project, a 122-MW solar farm in Brazil. Newly announced Indian solar projects—which bring our total number of utility-scale renewable projects in India to six—are expected to have capacity of 920 MW once operational. We also announced our first utility-scale renewable energy projects in Indonesia and Poland. Utility-scale projects in the U.S., Japan, Germany, Finland, France, Poland, Singapore, and Spain were also announced in 2022.

Did You Know?

As of the end of 2022, Amazon's largest operational renewable energy project was in Alberta, Canada.

Amazon Renewable Energy Projects*

Project Location	Number of Projects	Total Annual Expected MW Capacity when Operational
Australia	7	265
Austria	1	0.03
Brazil	1	122
Canada	3	460
China	2	200
Finland	7	258
France	5	39
Germany	6	638
India	47	940
Indonesia	1	210
Ireland	4	229
Italy	22	115
Japan	8	73
Netherlands	1	380
Poland	2	89
Singapore	2	64
South Africa	1	10
Spain	45	1,587
Sweden	4	746
United Arab Emirates	1	3
United Kingdom	31	565
United States	200	13,485
Total	**401**	**20,478**

* This table includes both on-site solar and contracted off-site utility-scale wind and solar projects, which are in various stages of development and construction. Twenty-five of the projects included in the table were announced in January 2023.

Newly Operational and Announced Projects

Several previously announced projects became operational for the first time in 2022. In New South Wales, Australia, two solar farms became operational and are predicted to collectively generate 372,750 megawatt-hours (MWh) annually. Five projects in Europe—two solar farms in Spain and Italy and three wind farms in Sweden and the UK—went live and together are expected to generate 1,980,000 MWh annually. Two projects in China, one wind farm and one solar farm, also launched and are expected to produce 450,500 MWh annually.

Energy Storage Solutions

We invest in energy storage to collect and save clean energy for use when renewable energy sources are unavailable—such as at night or during periods of high demand—and to provide grid stability.

During 2022, we launched solar projects paired with battery storage capabilities in Arizona and California. Together, the projects deliver 450 MW of energy, alongside 225 MW of battery storage. Across our portfolio, we now hold 445 MW of storage capacity. We are looking to increasingly pair renewable generators with storage to provide near 24/7 carbon-free electricity on grids with significant solar.

While storage solutions have the potential to meet energy requirements when supply isn't readily available, current constraints, such as high costs, mean we continue to pilot storage on a small scale.

Supporting a Just Clean Energy Transition

As the world's largest corporate renewable energy purchaser, we have a unique role to play in supporting a just, equitable, and sustainable clean energy transition. In May 2022, Amazon became a founding member of Beyond the Megawatt—an initiative by the Clean Energy Buyers Institute (CEBI) to maximize the environmental and social benefits of the clean energy transition.

As a member, we support Beyond the Megawatt's efforts to address resilience, social equity, and environmental protection issues by scaling impact-oriented clean-energy procurement strategies. The development of industrywide procurement standards to promote social impact and human rights within clean energy buying is critical to this partnership. These standards are expected in 2023.

A global clean energy transition will also require increased supplies of minerals that power more-sustainable technologies. This rise in demand has the potential to benefit millions through inclusive economic growth—if managed responsibly to prevent corruption and resource exploitation in "green" mineral-rich countries.

In November 2022, Amazon partnered with USAID, the BHP Foundation, and the Chandler Foundation to deliver the Powering a Just Energy Transition Green Minerals Challenge (JET Minerals Challenge). The challenge seeks to catalyze the development, application, and scaling of innovations to strengthen transparency and counter corruption in critical mineral supply chains.

Wind turbines in a sunflower field in Hyde County, South Dakota.

Energy Optimization

Throughout 2022, we expanded AWS' machine learning solution, renewable energy optimization (REO), to improve the performance of our renewable portfolio. REO prioritizes delivery of clean energy where it's needed most. A dedicated REO team leverages AWS Cloud technology to optimize wind and solar portfolio performance with near real-time monitoring of renewable energy projects. By 2025, we expect technologies like this could deliver additional clean energy equivalent to a 200-MW wind farm when deployed across Amazon's portfolio.

Energy Optimization for Amazon Devices

We seek to reduce emissions by encouraging Amazon device suppliers to use renewable energy and reduce manufacturing emissions.

We also look to mitigate device-related emissions during the downstream use phase. To achieve this, we are taking steps to purchase renewable energy that matches customer electricity use associated with Amazon devices.

Emissions First Accounting Principles

During 2022, Amazon helped to launch the Emissions First Partnership, a coalition that is playing an increasingly important role in the standards that govern how we account for and reduce the world's carbon footprint. The principles outline four areas for accounting frameworks:

- Prioritize decarbonization
- Value grid decarbonization progress
- Incentivize innovation in the emissions data ecosystem
- Enhance emissions accounting governance

With the introduction of more renewable energy options into electrical grids globally, the variability of generation mixes increases, resulting in carbon emissions that vary substantially based on time and location. With this in mind, it's more important than ever that decision-makers opt for renewable electricity options that maximize emissions reductions. Making the right electricity choices relies on accurately understanding the most significant decarbonization opportunities.

Learn more about the Emissions First principles.

We also set a goal to invest in wind and solar farm capacity equal to the energy used by all Echo, Fire TV, and Ring devices worldwide by 2025. At the end of 2022, we contracted enough renewable energy capacity through new wind and solar farms to equal the expected energy use of devices globally in 2025. Some of these farms are operational today, and others are currently under construction and expected to begin operating in 2023–2024.

Learn more about Amazon devices and how we are encouraging suppliers to decarbonize through renewable energy.

Advocating for Renewable Energy Solutions

Amazon seeks to accelerate global adoption of cleaner energy options through public policy engagement.

In the U.S., the Federal Energy Regulatory Commission (FERC) is driving efforts to modernize the electricity grid. This work is important because grid-enhancing technologies (GETs) can bring renewables to more people by unlocking capacity and improving efficiency. GETs also complement the advancement of new transmission infrastructure. Combined, this means faster, more cost-effective deployment of clean energy.

We have publicly stated our support of FERC's proposal to require incorporation of corporate energy commitments into long-term planning for bringing new renewable resources onto the grid. We also support policy development for accelerating how new renewables are connected to the grid, encouraging FERC to update the process for integrating wind, solar, and storage projects into the national energy mix.

We seek to advance national renewable energy goals where we operate. For example, in Indonesia, we plan to buy electricity from third-party solar parks being installed in Bali and Java and connected to the Java-Madura-Bali grid. Not only will this help renewably power our local operations, it will also support Indonesia's goal to increase the use of renewables.

Looking Forward

We will continue exploring ways to renewably power our operations, introducing new wind, solar, and storage projects to reduce our reliance on carbon-based energy sources. Throughout 2023, we will identify new technologies that accelerate renewable energy deployment and, ultimately, help us achieve our net-zero carbon emissions goal. We will also engage additional device component suppliers to establish renewable-energy implementation plans.

Packaging

Packaging is one of the first things our customers experience when they receive an Amazon order. With millions of orders shipped globally every day, we have a responsibility to make sure products are safely delivered to our customers, while optimizing delivery packaging for sustainability and performance.

Actions

41%

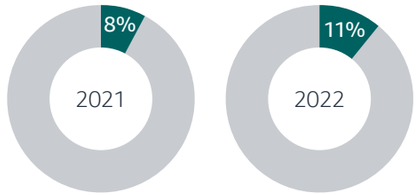
Reduction in per-shipment packaging weight on average since 2015 (an increase from 38% in 2021), representing more than 2 million tons of packaging materials avoided

37,150

Metric tons of plastic packaging avoided globally since 2020

11%

Of packages globally shipped without Amazon delivery packaging, also known as Ships In Own Container (SIOC) (an increase from 8% in 2021)



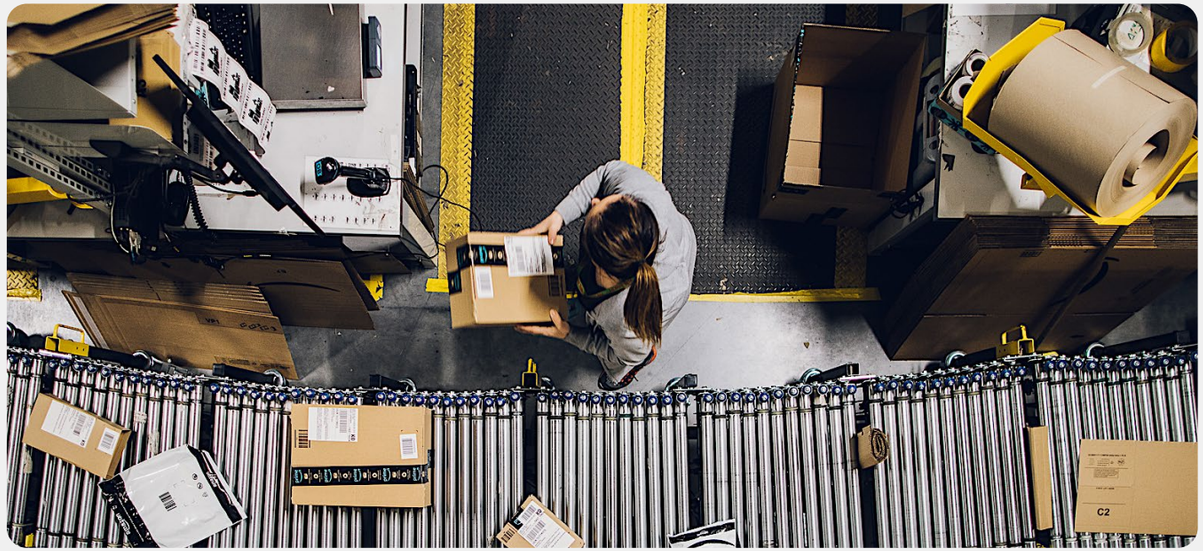
Reducing Plastic Packaging Globally

99%

Of mixed-material mailers, which contain both plastic and paper, replaced with recyclable paper alternatives in the U.S. and Canada

Eliminated single-use plastic delivery bags for orders shipped from European fulfillment centers and replaced them with curbside-recyclable alternatives

Eliminated single-use air pillows in Europe and Australia and replaced them with curbside-recyclable paper material



An Amazon fulfillment associate processes an order using a curbside recyclable box.

Our Approach

Our customers want right-sized, easily recyclable packaging that minimizes waste and ensures damage-free delivery.

Wherever we operate, circumstances such as geography, available technologies, weather conditions, and delivery vehicle types create unique complexities we must consider to develop effective packaging approaches. We believe packaging is waste to be eliminated and have defined priority actions that start with avoiding unnecessary packaging:

- Our first priority is to eliminate packaging unless necessary. We strive to not give waste to our customers.
- When packaging is required, we optimize with lighter, right-sized packaging to reduce waste and carbon, while ensuring products arrive safely.
- We strive to use packaging materials that are curbside recyclable and have a lower carbon footprint.
- We partner with industry peers to create and scale solutions quickly.

Our Progress

Eliminating Packaging

One of our first priorities has been to eliminate the use of additional Amazon packaging. We are also taking targeted actions to find ways to minimize carbon emissions, increase recyclability, and reduce waste.

Ships In Own Container

Sometimes the best solution is to use what already exists. That's the idea behind our SIOC approach, in which eligible items are delivered in the original manufacturer's packaging without additional Amazon delivery packaging.

In 2022, SIOC accounted for 11% of packages globally, including:

- 12% of shipments in the U.S. and Canada (up from 10% in 2021)
- 7% of shipments in the EU (up from 5% in 2021)

We believe many products can be shipped without added packaging. We are expanding SIOC by identifying, evaluating, and certifying items already packaged in materials suitable for shipping. Externally, we engage and incentivize selling partners and vendors to re-engineer packaging to meet SIOC standards.

Learn more about our work to eliminate carbon emissions, reduce waste, and improve product sustainability.

Avoiding Packaging in Grocery

We want every customer order to be delivered in optimal condition. That means finding ways to balance product protection with waste elimination. For Amazon Fresh North America and Whole Foods Market, our packaging insulation varies depending on the weather. We are focused on continually rolling out improvements that allow us to reduce packaging while keeping groceries cold. In North America, we launched daily variable insulation for Whole Foods Market deliveries to make sure chilled items stay cold, no matter the outside temperature. Insulating material requirements are tracked and adjusted daily to ensure they are only used when necessary. In 2022, this resulted in avoiding approximately 900 metric tons of packaging, equivalent to the weight of six blue whales.

Optimizing with Lighter, More Flexible, and Right-Sized Packaging

With millions of products and an infinite number of order combinations, identifying the optimal packaging size to keep each unique order safe during transit represents a significant challenge. We use machine learning algorithms to determine the best packaging solution for each order we fulfill.

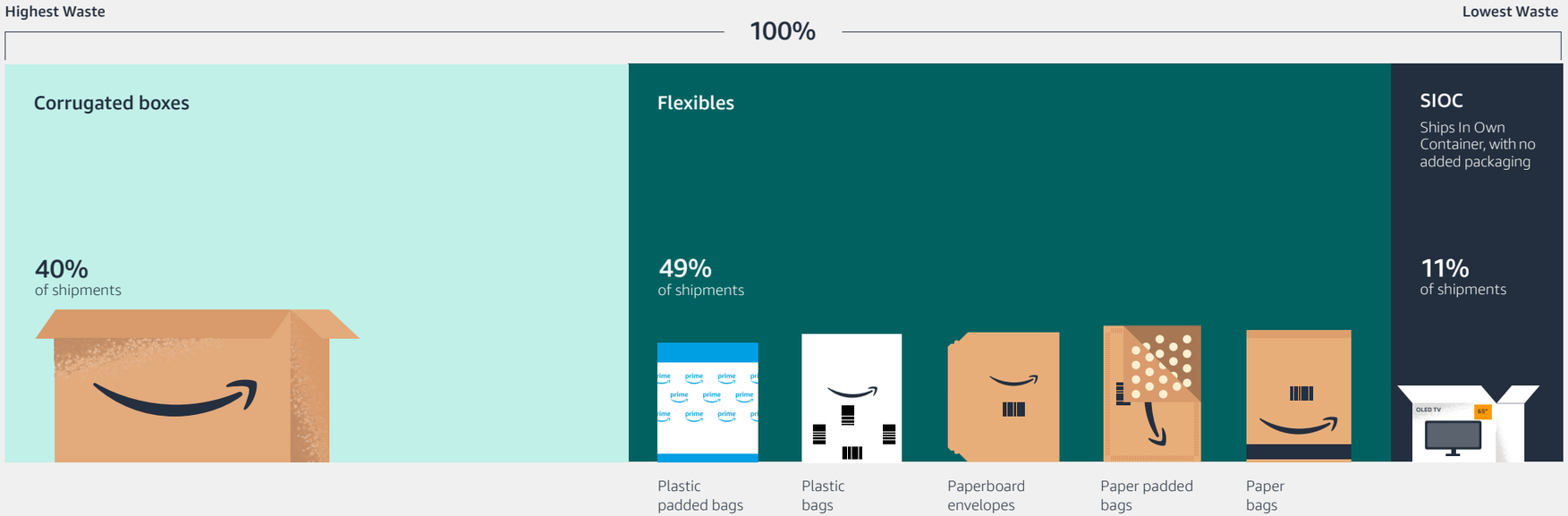
These cutting-edge algorithms help reduce empty space in packages. Computer vision and natural language processing guide our system to pinpoint the optimal packaging type for each item—from bag to box—depending on the level of protection needed.

Where possible, we use lightweight packaging by prioritizing flexible paper bags and envelopes, which are up to 90% lighter than similar-sized, rigid corrugate boxes.

We work backward from the customer to identify solutions that enhance their experience and improve the environmental performance of our packaging. Throughout 2022, we scaled automation capabilities to optimize and right-size our packaging selections. By automating our processes, we can also simplify operations, enhancing employee safety and overall productivity.

Our 2022 Delivery Packaging Breakdown*

We seek to maximize our use of low-waste packaging types while achieving year-over-year reductions in the volume of higher-waste packaging options.



* Data represents U.S., Canada, and EU-10 regions.

Minimizing Packaging Waste

Automated, right-sized packaging is key to advancing our sustainability efforts; where it isn't possible, we seek to optimize the packaging size and weight options our fulfillment centers can choose from.

We have developed a web-based tool to minimize waste by equipping each fulfillment center with an optimized suite of packaging options. These mechanisms use complex algorithms to identify the best package options. The tool is now used in Amazon fulfillment centers globally to reduce waste.

| **Learn more** about PackOpt.

| We leverage technology to right-size packaging for deliveries.

Prioritizing Recyclability and Carbon Impact

We seek to increase recycling rates for Amazon packaging and strive to enable curbside recyclability where available. We use several packaging options to optimize for durability, performance, and recyclability. These include paper-based options, like boxes and paperboard envelopes, and plastic film options, like plastic bags and air pillows.

In 2022, we used 85,916 metric tons of single-use plastic across our global operations network to ship orders to customers. This represents an 11.6% decrease from 97,222 metric tons in 2021.[17] This decrease also contributed to a 17.1% decrease in average plastic packaging weight per shipment in 2022 across our global operations network, building on the over 7% reduction achieved in 2021. This was driven by expanding paper-based packaging and SIOC, and continuing use of lighter, more flexible, right-sized packaging.

We are phasing out padded bags containing plastics in favor of recyclable alternatives. During 2022, we expanded recyclable paper padded bag use across the U.S. and Canada, replacing 99% of harder-to-recycle padded bags that contain both plastic and paper. We eliminated single-use plastic delivery bags for orders shipped from European fulfillment centers and replaced them with curbside-recyclable alternatives. We also eliminated single-use air pillows in Europe and Australia and replaced them with curbside-recyclable paper material.

Today, approximately 92% of packaging material weight in the U.S. and Canada—excluding produce bags and coolants—is curbside recyclable where programs are available. All EU one-way delivery packaging—excluding coolants—is also curbside recyclable.

Partnering to Scale

We partner with industry peers and expert organizations, such as the Sustainable Packaging Coalition, to improve recycling infrastructure. We also invest in developing foundational solutions that address some of the broader issues with plastics. In 2022, we joined the U.S. Department of Energy's BOTTLE[18] consortium, led by the National Renewable Energy Laboratory (NREL), to develop technology that will enable bio-based and biodegradable plastic recycling. This is the beginning of a new path to make plastics with the benefits of paper, enabling lighter-weight packaging with lower carbon emissions.

Looking Forward

We remain committed to enhancing our packaging for both performance and sustainability. We have made notable progress to date and, as we move through 2023 and beyond, we will seek to continue eliminating packaging through SIOC, reduce waste through automation and right-sizing, and select recyclable materials where possible.

Waste and Circularity

Global natural resource extraction has more than tripled since 1970 and continues to increase, placing unsustainable pressure on the planet.[19] Creating a circular economy, where waste is eliminated, resources are circulated, and nature is regenerated, is critical to transitioning to a more sustainable future. Amazon is working to send more materials back into the circular economy loop. Most of our potential waste comes from customer fulfillment operations, from materials that become obsolete in our supply chain or from surplus inventory, including items that are overstocked, returned, cosmetically damaged, or near expiration. We work hard to reduce waste wherever possible.

Goals

Goal
Reduce food waste by 50% across U.S. and Europe operations by 2030[20]

Progress

82M

Meals donated globally—70M in the U.S. and 12M in Europe

Actions

7.6M+

Products repaired in the U.S. and Europe through internal repair programs

449

Whole Foods Market locations with active organic diversion programs to divert food waste

12

Supplier sites that manufacture our most popular Echo, Kindle, Fire tablet, and Fire TV devices achieved UL's Zero Waste to Landfill certification at Silver or better

Amazon United Kingdom (UK) signed on to the Waste and Resources Action Programme (WRAP) and Institute of Grocery Distribution (IGD) Food Waste Reduction Roadmap

Robin Cywar, a researcher from BOTTLE consortium partner NREL, works to redesign nylon polymers that make recycling easier and more efficient through chemical processes.

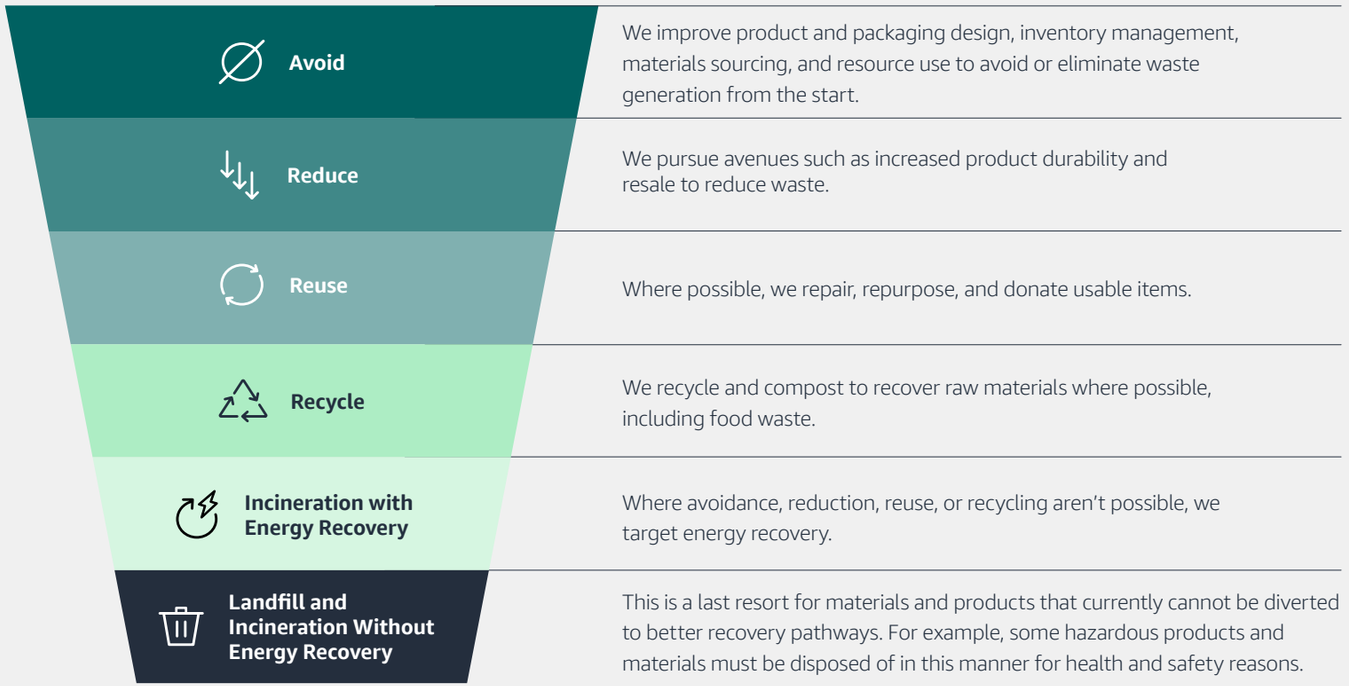
Our Approach

The best way to reduce waste is to avoid creating it in the first place through waste-prevention programs and optimized inventory management. By creating a circular economy for materials and products, not only can we keep valuable resources in use for longer, but we can also reduce related impacts such as carbon emissions and environmental pollution.

We are working to eliminate waste and increase recycling and reuse across our business. We are also optimizing product design and providing our customers with opportunities to repair, resell, recycle, and repurpose products and materials.

Amazon's Approach for Materials Use

This waste hierarchy is a framework that helps guide our approach to managing and avoiding waste. It represents the most preferred option at the top to the least preferred at the bottom. We are focused on reducing our impact by pursuing opportunities that are more preferred before moving down the hierarchy.



Avoiding and Managing Waste

Waste is generated in both our direct operations, including some subsidiaries, and in our supply chain. We classify it by two categories: internal (direct) or external (indirect).

Direct waste is produced inside Amazon's organizational boundaries; indirect waste is generated by third parties (e.g., suppliers, customers).

The primary materials streams for Amazon's footprint include:

- **Operations:** This covers any waste from Amazon's internal operations and falls into two categories: noninventory and inventory (product).
  - Noninventory materials streams include nonproduct material (i.e., goods not intended to generate revenue) that is discarded. This includes used office furniture, corrugate, shrink wrap, break room waste, and damaged storage equipment.
  - Inventory materials streams include heavily damaged and unsold products, customer returns that cannot be repaired, food that is no longer safe for consumption, unused nonfood inventory, and goods that cannot be donated, sold via wholesalers, or sold on Amazon Warehouse.[21]
    - **Food waste:** Food-related waste is generated in our Amazon Kitchen manufacturing facilities, physical grocery retail stores, and fulfillment centers.
- **Customer:** Waste generated at the customer product-use phase or in the form of product and delivery packaging, including end-of-life impacts.
- **Construction:** Waste generated from construction activities related to building our facilities. Consists mainly of comingled construction and demolition waste like metals, masonry, asphalt, and drywall.
- **Supply chain:** In addition to our direct footprint, we are focused on reducing supply chain waste, which is waste generated by third-party suppliers who manufacture products for, and provide goods and services to, Amazon.

Our Progress

Operational Waste

Operational waste is what we can most directly control and impact. We manage operational waste generated across our business, including grocery, retail, e-commerce, office buildings, and data centers.

Noninventory Materials Management

Noninventory waste is generated from materials used to run our businesses. Corrugate represents one of our largest noninventory materials streams and we work closely with third-party recycling vendors to remove excess corrugate for off-site recycling. We are also scaling single-stream recycling, composting, and plastic film recycling across our operations. We strive to avoid electronic waste generation and, when this is not possible, focus on reuse and recycling.

We pursue solutions and industry partnerships to advance more beneficial end-of-life pathways for materials. We also continually improve our data architecture to enhance waste tracking and management. Additionally, in 2022, we launched a centralized waste-collection initiative across select corporate buildings in the U.S. to replace desk-side bins with communal alternatives, which is expected to increase waste diversion by 16%.

AWS Waste Reduction Through Reverse Logistics

Amazon Web Services (AWS) is embracing circular economy principles for our server racks by designing reusable and lower-carbon rack systems, keeping equipment operating efficiently, and recovering value from securely decommissioned equipment through reuse, repair, and recycling. This allows us to keep resources at their highest value for as long as possible—reducing waste generation from our global operations, and decreasing the use of raw materials and carbon emissions across our supply chain. We are focused on three priorities:

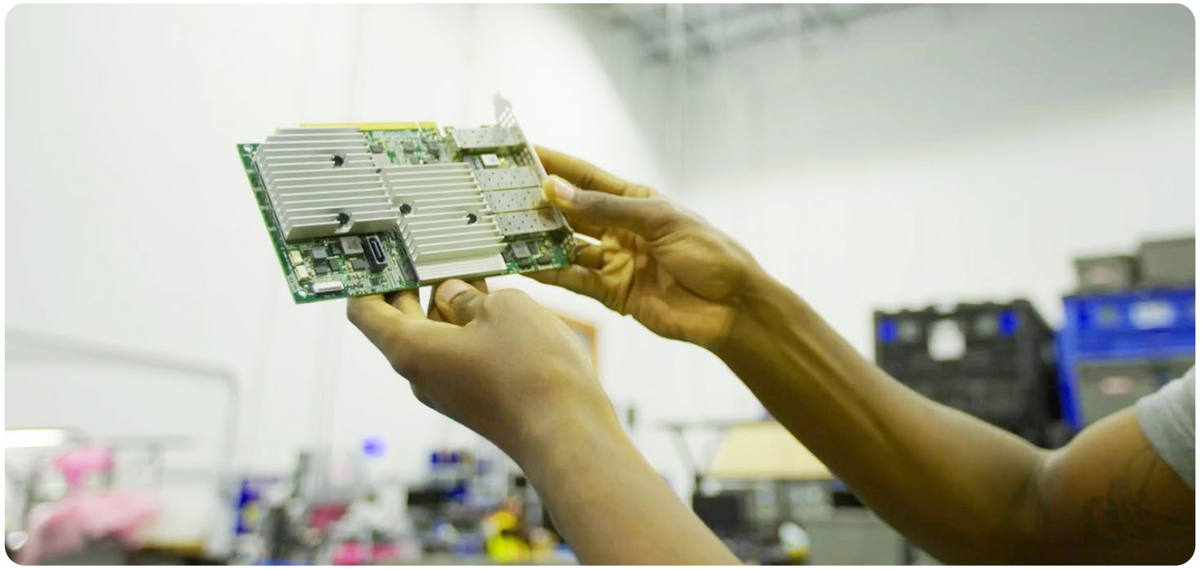
- **Design:** At AWS, server rack circularity and sustainability begin with design. We focus on eliminating excess materials such as steel or plastic, increasing recycled and bio-based content, and planning for repair, reuse, and recycling from the start.

- **Operate:** Using our equipment for as long as operationally efficient reduces the carbon footprint associated with using hardware. In 2022, we extended AWS server life from four years to five and that of networking equipment from five years to six. In addition, AWS has a robust maintenance and repair program designed to increase component reuse and further reduce carbon emissions and waste across our supply chain.

- **Recover:** When it is time for server racks to be decommissioned, sanitized equipment is routed to our reverse logistics hubs in the U.S. and Ireland. These hubs test, repair, and recirculate non-media-storage equipment back to data centers or to be sold for reuse by third parties. We do this on a global scale, funneling all retired rack systems through our dedicated reverse logistics network. Centralizing the decommissioning process also allows AWS to optimize component reuse across our data centers, taking decommissioned equipment from one facility and redeploying it to serve demand elsewhere.

Inventory Management

Amazon inventory management primarily involves items returned by customers, damaged in handling, or that are overstock. Items that fit these descriptions are considered for resale, reuse, repair, or donation. We maximize product recovery through discount channels, such as Outlet, Amazon Warehouse, and selling to wholesalers.



We take a circular approach to equipment, designing for reusability and operational efficiency, and recovering value through reuse, repair, and recycling.

Customer Returns Avoidance: We want to help customers keep what they bought for as long as possible with Product Lifecycle Support (PLS) options that let people address post-purchase product issues. We currently offer three free post-purchase care options: original equipment manufacturer (OEM) support and OEM repair, where customers can go straight to the manufacturer for support; Self Service, which helps customers address issues themselves; and parts replacement, where customers can request available components to replace damaged or missing parts, free of charge. In 2022, PLS programs helped avoid 7.5 million returned units in the U.S. and Europe.

Customer Returns and Damaged Items: Amazon puts returned items through a detailed inspection process, and if the product meets our high quality standards, the item is tagged as "new" and relisted for sale. In 2022, most customer returns in Europe and the U.S. were eligible to be resold as new. Items that are not new are returned to vendors and the rest are graded and evaluated for resale as "used" on Amazon Warehouse. In 2022, 31% of units in Europe and 29% of units in the U.S. that were not able to be resold as "new" were relisted on Amazon Warehouse. Additionally, a global warehouse damage-reduction plan resulted in an 8% decrease in damaged items worldwide in 2022.

Overstock: If we cannot sell a product, our first action is to return it to the vendor for resale through a different channel. In 2022, 79% of overstock products in Europe and 64% of overstock products in the U.S. were returned to the original vendor. Where this isn't feasible, we offer items at a discount on our Outlet storefront or sell them to wholesalers.

Repair: If a returned or damaged product does not meet Amazon Warehouse resale requirements, we work with repair vendors to fix the item so it's eligible for relisting. In 2022, we repaired over 7.6 million products across Europe and the U.S. through repair partners.

Wholesalers: Where we cannot resell an item as new, return it to the vendor, or sell it via Amazon Warehouse, Amazon will sell the item to wholesalers or via alternative sales channels, to be resold via secondary markets.

Donations: Overstock, returned, or lightly damaged items that remain after resale, repair, and sale to wholesalers, and that are safe for use, are donated. In 2022, we donated 19.0 million items in Europe and the U.S.

Learn more about our product donations.

When items are broken, unsafe, regulated, or unfeasible for sale or donation via any other pathway, we recycle as much as possible.

ReCommerce: We have extended ReCommerce services to sellers; through this service we grade and resell, liquidate, or donate their returned, damaged, or overstocked products. In 2022, we enabled U.S. third-party sellers to resell 2.9 million "used" items. We also supported third-party sellers in Europe and the U.S. in selling more than 120 million items for wholesale and donating 107.8 million items. The Amazon Outlet storefront also helped third-party sellers sell 28 million units as part of our ongoing efforts to avoid overstock. We also expanded ReCommerce beyond Europe and the U.S., helping sellers globally find ways to keep products in use.

Food Waste

We became one of the Food Loss and Waste 2030 Champions through the U.S. Environmental Protection Agency (EPA) in 2020, and extended our commitment to reducing food waste to our Europe operations in 2021. Additionally, in early 2023, Amazon UK signed on to the WRAP and IGD Food Waste Reduction Roadmap.

Preventing and Redirecting Food Waste

Our approach to food waste prioritizes optimizing product selection, management, and distribution systems to reduce excess inventory. Where we do have surplus, we look to offer discounts on items at risk of becoming waste. We also take steps to maximize donations.

In 2022, we enhanced buying and distribution systems to reduce surplus inventory across North American and European Amazon Fresh sites as well as Amazon.com distribution chains in Europe. Amazon Fresh also improved its food-discounting technology to sell more items to customers before they passed their sell by dates.

We donate surplus food items to those who need them most. In 2022, across the U.S. and Europe, we took various steps to maximize donations, including implementing key process improvements. In the UK, we initiated partnerships for short-shelf-life and other difficult-to-donate items. By the end of the year, we had donated 82 million meals globally—70 million meals in the U.S. and 12 million in Europe. This included over 30 million meals donated to local food banks and food rescue organizations from Whole Foods Market, as well as donations from Amazon Fresh, Customer Fulfillment, Amazon Go, and Kitchens.

All U.S. and European Amazon Fresh stores, as well as Amazon Fresh distribution centers in Europe, divert food waste to organic recycling services, including those that support composting or anaerobic digestion. Whole Foods Market is committed to minimizing food waste that ends up in landfill by distributing it to more-sustainable streams such as composting, animal feed, or anaerobic digestion. In 2022, Whole Foods Market had active organic diversion programs at 449 locations, which collectively diverted nearly 108,000 tons of food waste from landfills.

Construction and Demolition Waste

We aim to reduce construction and demolition waste from building projects. To do this, we leverage our design template provision and contractual agreements to ensure contractors manage construction waste in accordance with legal requirements and our own high standards for management approach and requirements. Where possible, we also include requirements that encourage minimizing waste in the first place and the reuse of construction materials to reduce waste generation.

Customer Waste

We want to reduce waste throughout our value chain. This requires looking downstream to customers and considering how we can help them sustainably use the items they buy from Amazon.

Amazon helps customers keep items in use for longer through repair, refurbishment, resale as pre-owned, or recycling. We offer several routes to support product circularity, as part of our wider Amazon Second Chance program, including Amazon Trade-In and Amazon Device Recycling.

We are also innovating more ways for customers to shop for sustainable products and responsibly manage the packaging in which their items are delivered.

Amazon's recyclable, paper-based packaging helps our customers divert waste from landfill.

Annapurna Labs in Austin, Texas, where AWS chips are made.

Supply Chain Waste

We engage suppliers to reduce waste related to the manufacture of Amazon devices. We also support them with dematerialization—reducing material use in the items we procure. For example, our Devices teams are engaging suppliers to reduce waste and material use as part of our work to minimize environmental impacts associated with manufacturing.

In 2021, we launched a Zero Waste to Landfill program with 10 device supplier sites; in 2022, we expanded it to certify all China-based final assembly sites that manufacture our most popular Echo, Kindle, Fire tablet, and Fire TV devices. Other sites covered by the program include manufacturers of device accessories, components, and packaging. In 2022, 12 new sites were certified, bringing our total number of certified supplier sites to 22 at the end of 2022, all of which have achieved UL's Zero Waste to Landfill certification at Silver or better.

Partnering for Circularity

Creating a global circular economy for products requires industry collaboration. In 2022, we expanded our partnership with the Ellen MacArthur Foundation. We also support the development of a sorting technology to improve plastic packaging recycling through our involvement in the Digital Watermarks Initiative HolyGrail 2.0, driven by AIM—European Brands Association and powered by the Alliance to End Plastic Waste.

In 2022, we joined 4evergreen—a cross-industry alliance working to increase fiber-based packaging recycling—as well as the Circular Economy for Flexible Packaging (CEFLEX) industry consortium. In Europe, we are partnering with WRAP on a recycling initiative, aiming to leverage WRAP's expertise and industry network and Amazon's technology, innovation, and customer obsession to deliver increasingly effective recycling solutions.

Looking Forward

Eliminating waste across Amazon is an ongoing journey. In 2023, we will continue to scale waste-reduction and product-circularity programs across our own operations, as well as throughout our supply chain and customer areas.

Water

Access to water is a fundamental human right, but the United Nations (UN) estimates that by 2050, 52% of the global population will live in water-stressed areas.[22] This poses potential health and economic risks for Amazon's employees, customers, communities, and business. Amazon is taking action to address these risks across our operations and value chain.

Goals

Goal

Amazon Web Services (AWS) has committed to being water positive by 2030. That means returning more water to communities and the environment than it uses in direct operations

Progress

Goal announced in 2022. Initial efforts are focused on connecting new data centers to recycled water, improving water efficiency, and developing new replenishment projects

A wastewater clarification tank used in water recycling.

Actions

$10M

Planned contribution to help launch the Water.org Water & Climate Fund to directly empower 1 million people with water access by 2025, providing 3 billion liters of water per year in areas facing water scarcity

0.19

Liters of water per kilowatt-hour (L/kWh) water use efficiency for AWS data centers, a 24% improvement from 0.25 L/kWh in 2021

2.4B

Liters of water to be replenished through community projects—some of which were already returning water at the end of 2022, with others due to start in 2023

20

AWS data centers globally use recycled water for cooling, up from 18 in 2021

212

Amazon operations facilities in India achieved water neutrality in 2022

38

Whole Foods Market stores installed new water-recycling defrosting systems, which have the expected potential to eliminate 98.5% of water use associated with defrosting

Our Approach

We take a proactive approach to water stewardship, analyzing our footprint, driving operational resilience, and building more-efficient systems that reduce our impact on local water sources. Different businesses use water in different ways, and water risk varies significantly across geographies. We are investing in data insights with the aim of designing a water program that can be tailored to unique geographic and business unit needs.

For example, AWS has a goal to be water positive by 2030 through increasing water availability at and around operational sites. We will achieve this by improving efficiency, using more-sustainable sources such as recycled water, returning water for community reuse, and supporting replenishment projects.

Amazon's Water Usage

Our global water use includes water used both in direct operations and in our wider supply chain. Water is used in various ways across our facilities. For example:

- **Data centers:** primarily use water in server-cooling processes.
- **Operations:** use water in break rooms, kitchens, bathrooms, and landscape irrigation, particularly fulfillment centers, sort centers, and delivery stations.
- **Physical stores (Whole Foods Market and Amazon Fresh):** primarily use water to clean and defrost foods.
- **Offices:** mainly use water in office kitchens, bathrooms, and landscape irrigation.

Beyond our operations, water is used to grow, process, and manufacture Amazon products and construction materials, and to produce the power we rely on for operations.

Our Progress

Data Centers

To meet our AWS water positive goal, we are focusing on four strategies:

- Increase water efficiency
- Use more-sustainable sources
- Reuse cooling water
- Invest in water replenishment

Accomplishing our goal requires cross-team collaboration, with input from engineers, operations experts, commissioning professionals, and those with sustainability oversight.

Increasing Water Efficiency

We are continuing to invest in data center water use efficiency (WUE) in three ways. It begins with our preferred efficient evaporative cooling design, which uses outside air rather than water to cool data centers for much of the year. During hotter months when water is needed, outside air is cooled through evaporative processes and pushed into server rooms to keep hardware at stable operating temperatures. Second, we incorporate real-time alarm systems to enable timely responses to any issues that could cause water waste. Finally, we update operational sequences to optimize water use and employ on-site water treatment to increase water recycling.

With this strategy, our global data center WUE was 0.19 L/kWh in 2022, a 24% improvement from 0.25 L/kWh in 2021.

Using More-Sustainable Water Sources

We seek to reduce potable water consumption where possible, relying on alternatives like recycled water and rainwater harvesting. As of 2022, 20 data centers use recycled wastewater in cooling systems—16 in Virginia, two in California, and two in Singapore. In Brazil, two data centers collect rainwater to supply a portion of cooling water needs.

In several regions, we partner with community stakeholders to expand recycled water infrastructure. Doing so helps build local resilience against increasing climate change-related water issues such as drought. In 2022, we worked with local government and water utilities in Loudoun County, Virginia, to expand the infrastructure network that delivers recycled water to the community. We are working with several other municipalities to scale similar infrastructure.

Reusing Cooling Water

Water discharged from data centers is safe for many uses, and we seek ways to return it to the communities in which we operate. To confirm water quality is maintained, we closely monitor it throughout our systems.

Investing in Water Replenishment

We are focused on restoring watersheds and increasing access to water, sanitation, and hygiene services in water-stressed communities. In 2022, AWS completed projects with Water.org and WaterAid to provide clean water and sanitation to over 290,000 people across India and Indonesia.

Amazon is also partnering with Water.org to launch the Water & Climate Fund. The initiative will enable climate-resilient water and sanitation solutions that create lasting access to safe water sources for 100 million people across Asia, Africa, and Latin America. The Fund will support projects including water reuse infrastructure, wastewater treatment plants, and water loss reduction. In addition to supporting the creation of the Fund, Amazon's $10 million planned contribution will directly empower 1 million people with water access by 2025. This will provide 3 billion liters of water in water-scarce areas annually and represents one of the largest private investment portfolios in water and climate to date.

In England, AWS is collaborating with The Rivers Trust to create wetland areas in the Thames River basin. These wetlands will recharge groundwater and improve water quality by naturally filtering polluted runoff. In California, AWS has worked with The Freshwater Trust and the Omochumne-Hartnell Water District to recharge groundwater along the Consumnes River, benefiting water systems that supply the Bay Area.

Clean drinking water from an Amazon and Water.org project.

Operations, Physical Stores, and Offices

Operations

Across Amazon operations, teams are working to reduce water use, with some currently identifying baseline water use and others already analyzing usage data to target reductions.

India is one of the world's most water-stressed countries. To reduce water use in India operations, we have an active stewardship program and have adopted the Water Neutrality Index (WNI)[23] as a key metric. As of 2022, India operations achieved a WNI score of 1 for 212 in-scope operations facilities[24] and aims to achieve water positivity[25] for these same facilities in 2023.

Adam Selipsky, CEO of AWS, at the 2022 re:Invent conference where AWS announced its goal to be water positive by 2030.

We achieved this WNI score, in part, by designing buildings with rainwater-harvesting systems. Additionally, these facilities recycle greywater—water from domestic streams such as sinks, cafeterias, and washrooms—for irrigation and flushing water for toilets. More-efficient fixtures such as waterless urinals and water restrainers for high-flow fixtures contribute to a reduction in washroom consumption. In all future sites in India, we plan to include rainwater-harvesting pits and meters, water-recycling systems, and efficient fixtures. We aim to improve data accuracy and will begin implementing a water use index, which tracks water consumption in relation to building footprint.

In the United Kingdom (UK), we are piloting a rainwater-harvesting system in Wales, while installation of low-flow fixtures is underway across new and existing fulfillment sites. In 2021, UK operational facilities implemented an active water leak detection program to proactively identify and address issues. Planning is underway to scale this pilot globally.

Physical Stores

By the end of 2022, 38 Whole Foods Market stores installed a new defrosting system that recycles meltwater instead of allowing it to run down the drain. This new system can reduce up to 98.5% of water use associated with defrosting. In 2023, we are assessing the potential to scale this technology to other Whole Foods Market stores.

Corporate Offices

In global corporate offices, we are increasing water recycling and low-flow fixtures. Amazon set new standards for construction design in the U.S. to reduce indoor water use by 40% versus a Leadership in Energy and Environmental Design (LEED) baseline. We are scaling these standards globally.

In 2022, the first phase of Amazon's second headquarters in Arlington, Virginia, was under construction. Water-efficient features for the two office towers, known as Met Park, include low-flow fixtures, domestic hot water heat pump heat recovery, rainwater and greywater capture and reuse systems, and groundwater heat-exchange systems.

The recycling systems in Met Park alone are designed to save over 8.2 million gallons of water annually, while groundwater heat exchange will reduce annual cooling tower water usage by 720,000 gallons. Additionally, landscape areas are irrigated with 100% reclaimed and treated greywater. Altogether, Met Park is designed to reduce indoor water consumption by 50% (compared to a LEED v4 baseline), reduce cooling tower water consumption by 39%, and eliminate potable water use for irrigation. All in, Met Park is projected to use half as much water as similar-sized buildings.

Looking Forward

Throughout 2022, we made progress across regions and businesses to improve WUE. To build on this, we have launched a companywide water dashboard for greater oversight of site-by-site usage. In 2023, we will focus on data maturity and use insights to drive continual improvements.

The terrace gardens at our headquarters in Arlington, Virginia, feature recycled greywater systems for irrigation.

Human Rights

A company's activities impact the lives of millions of people around the globe. Even small businesses can have value chains that span dozens of countries. While states are responsible for protecting human rights, the private sector has a critical responsibility to respect and promote human and labor rights through responsible business conduct. The United Nations Guiding Principles on Business and Human Rights (UNGPs) set the global standard for identifying and addressing business-related human rights risks. Embedding respect for human rights in how a company conducts business is essential for meeting the expectations of governments, shareholders, civil society, and customers.

Actions

12,600

People supported with mental health screening through our work with PATH

6,300

People supported with occupational health screenings through our work with PATH

Twitch published its human rights impact assessment (HRIA)

Learn more by reading Twitch's Human Rights Impact Assessment Report

152

Global anti-trafficking leaders came together at the first annual Tech Against Trafficking Summit, hosted by Amazon

$3M

Committed to the U.S. Agency for International Development (USAID) Climate Gender Equity Fund

Our Approach

From the associates in our fulfillment centers, to the drivers delivering packages to our customers, to the factory workers making the products we sell—people are critical to our mission of being Earth's most customer-centric company. Amazon is committed to treating our own employees, and people connected to our entire value chain, with fundamental dignity and respect. We strive to embed respect for human rights throughout our business activities and relationships. In line with Amazon's Leadership Principles, we use our global scale and influence to drive progress on salient human rights issues across our operations and value chain.

Our human rights strategy is informed by leading international standards and frameworks developed by the UN and the International Labour Organization (ILO). Amazon is committed to respecting and supporting the UNGPs, the UN Universal Declaration of Human Rights, the Core Conventions of the ILO, and the ILO Declaration on Fundamental Principles and Rights at Work. Our approach is codified in our Global Human Rights Principles, a set of standards that demonstrate our support for fundamental human rights and the dignity of people connected to our business around the world. We regularly review these and other relevant policies to identify areas for improvement, a process supported by engagement with external stakeholders and benchmarking against evolving international and industry human rights standards.

Amazon's human rights strategy is based on the UNGPs and has five pillars:

- Developing and maintaining strong policies and standards
- Embedding human rights into our business operations and decision-making
- Assessing, prioritizing, and addressing risk
- Engaging with stakeholders, including supply chain workers, employees and contractors, customers, and communities
- Improving access to effective grievance mechanisms and remediation procedures

We have a central team that works across the company to conduct human rights due diligence and embed human rights considerations into everyday business decisions. With support from this central team, Amazon businesses are working toward integrating our human rights principles into their operations and business relationships, conducting human rights risk assessments, and remedying identified issues.

> **Learn more** about the responsibilities of each Board Committee and Amazon's oversight of human rights issues.

Our Progress

Our Salient Human Rights Risks

Identifying and prioritizing the most salient human rights risks[26] connected to Amazon's business is central to our human rights due diligence practices.

We worked with Article One, a business and human rights consulting firm, to complete an enterprisewide human rights saliency assessment in 2020. Through that process, we identified nine salient human rights risks across our operations and business relationships. Since then, we have built on this foundation, performing HRIAs across a number of Amazon businesses to gain deeper understanding of our salient issues.

Learn more about our 2020 human rights saliency assessment in our 2021 Sustainability Report.

Our Human Rights Strategy

- Develop and maintain strong policies and standards
- Embed human rights into our business operations and decision-making
- Assess, prioritize, and address risk
- Engage with stakeholders including supply chain workers, employees and contractors, customers, and communities
- Implement effective grievance mechanisms and remediation procedures

Actions Taken in 2022

- Updated supplier standards
- Conducted and socialized supplier assessments and performance reporting
- Implemented human rights impact and saliency assessments
- Consulted key stakeholders and focused on vulnerable groups
- Enhanced opportunities for concerns to be heard and issues resolved

Human Rights Impact Assessments

As we continue to improve and expand our human rights due diligence practices, we leverage HRIAs to assess and address risks connected to our operations and business relationships. HRIAs help us understand causes of systemic issues, enhance ongoing engagement with critical stakeholders, and facilitate increasingly transparent disclosures.

In 2022, Twitch conducted its first HRIA in partnership with Amazon's central human rights team and consulting firm BSR. Twitch is an Amazon subsidiary that provides interactive livestreaming services for content spanning gaming, entertainment, sports, music, and more. The HRIA identified the most salient human rights risks and opportunities related to Twitch's services, including content governance and online safety, incorporating a focus on vulnerable groups.

The HRIA outlined recommended actions for Twitch to take in addressing its salient human rights risks and connected these actions to industrywide collaboration and engagement across the Twitch value chain.

The HRIA identified the following human rights risks based on scope, scale, remediability, likelihood, and priority:[27]

- Tier 1: Bodily Security Rights; Child Rights; Right to Freedom of Opinion and Expression, and Access to Information; Right to Freedom of Thought, Belief, and Religion; and Right to Privacy
- Tier 2: Right to Access to Culture and Right to Own Property; Right to Equality and Non-Discrimination; Right to Participate in Government
- Tier 3: Right to Peaceful Assembly and Association; Right to Education

As a result of this assessment, Twitch gained a better understanding of the human rights risks connected to online streaming services, insights necessary to address these risks, and the knowledge required to take an even stronger human rights-based approach to Twitch products, service offerings, and growth.

Meaningful Consultation with Stakeholders

We recognize many human rights risks are systemic in nature—complex issues that can have widespread social impacts. We also recognize addressing them requires cross-industry engagement and collaboration to find effective solutions.

Throughout 2022, we drew on strategic partnerships in priority areas. For example, to advance our efforts to promote women's climate leadership, we became a founding member of the Climate Resolute Coalition, organized by The Mara Partners and Kite Insights to advance gender equality and reduce carbon emissions across global supply chains. We also made a founding investment in the Climate Gender Equity Fund.

To drive greater focus on human rights throughout our supply chain, we engaged with organizations like the Indirect Spend Alliance, Better Cotton Working Group on Decent Work & Gender, the Open Supply Hub, and the Responsible Sourcing Network's YESS initiative.

We also established new partnerships to address health care issues and crisis response. We partnered with the international nonprofit PATH to train Amazon suppliers in Vietnam to improve crisis response and mental health care. We also created a learning hub so suppliers and their workers could more easily access important health information. Finally, we worked with

PATH to support mental health screening for 12,600 workers and their families and occupational health screenings for 6,300 workers—enhancing safe and healthy working conditions across our Vietnamese supplier network.

As we move forward, we will continue consulting key stakeholders, building regional partner networks to support local human rights initiatives, and engaging global partners on Amazon's priority issues.

Learn more about our human rights progress.

Partnering to Address Human Trafficking

Amazon is a member of the steering committee for Tech Against Trafficking, a coalition of companies collaborating with global experts to help eradicate human trafficking using technology. In 2022, Amazon hosted the inaugural Tech Against Trafficking Summit, an event where over 150 global anti-trafficking leaders discussed opportunities for increased collaboration and technology-enabled solutions. From 2021 to 2022, we supported the second Tech Against Trafficking Accelerator, providing technical expertise to support two anti-trafficking nonprofits. In 2022, Tech Against Trafficking also announced its third Accelerator and is supporting Polaris's Nonechka program and the Issara Institute. Amazon seeks to accelerate the scale and impact of these organizations' technology solutions throughout 2023.

Looking Forward

Respecting human rights is core to how we do business at Amazon, today and in the future. We will create more opportunities for employees and business partners to learn about human rights at Amazon, empowering them to take action and build human rights protections into their everyday work. Externally, we will continue to consult with stakeholders, seek high-impact strategic partnerships that help us deliver on our priorities, and collaborate with others to raise the bar for human rights across the industry.

Responsible Supply Chain

Amazon works with suppliers around the world. We understand our responsibility to support safe working conditions, fair pay, and environmental protection beyond our direct operations. These challenges are vast, impacting millions of people globally. To address them, we need to take action in our own supply chain while engaging business partners and industry peers to drive improvements on a wider scale.

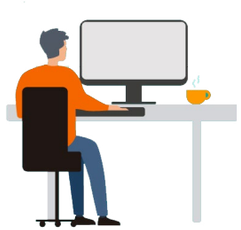
Actions

Updated our Supply Chain Standards to align with current best practices regarding worker rights and safe, fair working conditions

Learn more about our Supply Chain

21K

Workers supported since 2019 with health and financial skills training through BSR's HERproject, now called RISE (Reimagining Industry to Support Equality)



88

Sites our Worker Voice program partnered with across seven countries, with 95% of grievances verified and resolved

Became a founding member of the Open Apparel Registry's new organization, Open Supply Hub

Our Approach

Our goal is to realize safe, equitable, fair, and sustainable supply chains across all our businesses. We want to create long-term supplier relationships that align with our values, and we are committed to continually improving conditions. To achieve this, we regularly evaluate human rights risks in our supply chain, assessing both site-level and systemic industrywide risks. We then work closely with suppliers, leaning on strategic partnerships and capacity-building programs to drive improvement across our priority commitment areas:

- Safe and healthy workplaces
- Gender equity
- Fair wages
- Responsible recruitment and freely chosen employment
- Environmental protection
- Access to effective grievance mechanisms

We recognize addressing supply chain risks requires a collaborative approach, which is why we work through many industry associations and multistakeholder initiatives around the world to advance our goals on human rights and responsible sourcing. In 2022, we joined the Indirect Spend Alliance (ISA), a new industry working group that aims to identify areas of shared human rights risk in procurement, designing a single industry approach to address hot spots. Through quarterly group meetings and monthly workshops, the ISA is working to produce a collaborative, structured, and scalable approach to identification, assessment, and issue remediation for environmental and social risks in indirect spend categories. To maximize impact, the ISA is initially focusing on high-priority categories common to members, including construction, recycling and waste services, warehousing, haulage, couriers, and facilities. In 2022, we continued to work with Better Work regional teams and participated in the Buyers Forum, a platform for companies to share knowledge and learnings on salient human rights issues identified in the regions where they operate, and discuss how to address these through collective action. We also became a founding investor of Open Supply Hub in 2022, an accessible, collaborative supply chain-mapping platform, used and populated by stakeholders across sectors and supply chains. We are now disclosing key Amazon supply chain data through the platform and believe doing so will open further opportunities for brand collaboration on issue identification, remediation, and capacity building.

Learn more about how we are responsibly sourcing materials and commodities and about the organizations we partner with to drive supply chain efforts.

Supply Chain Standards

Amazon's Supply Chain Standards apply to all suppliers of goods and services for Amazon and Amazon's subsidiaries, including service providers, vendors, selling partners, contractors, and subcontractors (collectively, "suppliers").

We update these standards at least every three years, working with external stakeholders to align our requirements with current best practice and regulatory standards. We published our latest update in 2022. This update included strengthening existing protections on fair wages and requiring suppliers to offer equal pay for equal work. We also strengthened expectations around supporting workers' physical and mental health.

We added several new elements to our standards too, including:

- Protections for workers with disabilities
- Pregnancy-related accommodations
- Workers' freedom to terminate employment without penalty
- Legal parental leave policies
- Responsible artificial intelligence (AI) practices
- An environmental justice provision that encourages suppliers to assess and address environmental equity issues

Aligning Selling Partners with Our Standards

Selling partners are retail vendors and third-party sellers that sell products and services in Amazon's stores. Our Supply Chain Standards apply to every product and service provided to Amazon or sold in our stores. We encourage selling partners to perform human rights and environmental due diligence to help ensure products and services are produced and supplied in ways that respect human rights and the environment and protect the fundamental dignity of workers.

We evaluate all credible allegations of selling partner violations of our Supply Chain Standards. If we have reason to suspect products don't meet our standards, we may request due diligence from selling partners to demonstrate products were manufactured in accordance with Amazon's Supply Chain Standards. We reserve the right to remove products that don't meet those standards from our stores.

Amazon's Supply Chain Standards are applicable to all our suppliers and help to advance our commitment to respecting human rights.

Supplier Assessment and Performance

We assess suppliers of Amazon-branded products during onboarding and periodically thereafter to understand social and environmental performance. Assessments cover four categories: Labor, Health and Safety, Environment, and Ethics. These categories include subcategories such as nondiscrimination, emergency preparedness, hazardous substances, and transparency.

Assessment findings are flagged as high, medium, or low depending on severity. Amazon makes remediation of high-level findings a condition of continued business with suppliers. Where medium-level issues are identified, we deploy verification audits to see whether suppliers have made meaningful progress toward remediation within a defined timeline. For low-level issues, we monitor suppliers for continual improvement.

During 2022, 5,592 supplier assessments were performed across three categories:

- **Initial Assessments:** Suppliers must submit Amazon-approved assessments of their facilities before beginning production of Amazon-branded products. During 2022, initial assessments made up 19.5% of supplier assessments performed.
- **Ongoing:** Suppliers must submit ongoing Amazon-approved assessments while producing Amazon products. During 2022, ongoing assessments made up 56.6% of supplier assessments performed.
- **Verification:** Where high-level issues are identified, suppliers must develop corrective action plans to address identified issues and long-term plans to prevent reoccurrence. As necessary, suppliers must also undergo follow-up assessments to remediate issues. During 2022, verification assessments made up 23.9% of supplier assessments performed.

Supplier Assessments[28]

High- and Medium-Level Findings by Subcategory, 2020–2022 (% of all assessment findings)

	2020	2021	2022
Assessments			
Labor			
Freedom of Association	<1%	<1%	**<1%**
Freely Chosen Employment	8%	4.4%	**2.9%**
Humane Treatment	1%	<1%	**<1%**
Nondiscrimination	1%	<1%	**<1%**
Subcontractor and Next-Tier Supplier Responsibility	<1%	<1%	**<1%**
Wages and Benefits	47%	40.6%	**40.8%**
Worker Grievance/Complaint Mechanism	<1%	<1%	**<1%**
Working Hours	6%	5%	**3.8%**
Young Workers	<1%	<1%	**<1%**
Ethical Behavior			
Business Integrity	3%	1.7%	**1.4%**
Transparency	2%	2.7%	**1.3%**
Environment			
Hazardous Substances	<1%	<1%	**<1%**
Pollution Management and Prevention	3%	<1%	**<1%**
Health and Safety			
Emergency Preparedness and Response	13%	7.8%	**7.1%**
Industrial Hygiene	16%	13.6%	**15.3%**
Machine Safeguarding	<1%	<1%	**<1%**
Sanitation, Dormitory, and Canteen	2%	1.3%	**1.1%**

Our Progress

Safe and Healthy Workplaces

We work with suppliers globally to increase worker awareness of safety issues. This includes promoting a culture of shared safety responsibility and developing initiatives to support worker well-being.

During 2022, we maintained our involvement with the ILO's Sustaining Competitive and Responsible Enterprises (SCORE) program to improve productive, healthy, and safe working environments among small- and medium-sized manufacturers. Three criteria guided how we selected suppliers for inclusion in the training:

- Strategic suppliers as defined by our business units
- Suppliers identified as having high-risk health and safety issues in previous audits
- Suppliers with a workforce of fewer than 1,000 employees—smaller organizations in which training can have marked positive impact on productivity and working conditions

By the end of 2022, 62 suppliers were enrolled in the SCORE training across China, India, and Vietnam (versus 50 in 2021), cumulatively delivering nearly 42,000 hours of training. Third-party assessments before and after the training participation identified key improvements in workplace health and safety, productivity, and worker satisfaction as well as a reduction in accidents.

We are also working to enhance supplier building and fire safety. This includes in-person trainings that, during 2022, we delivered to more than 100 Indian supplier sites. We also completed building electrical fire safety assessments with suppliers in Pakistan and Bangladesh, and expanded assessments to select suppliers in China and Vietnam.

Learn more about how we embed health and safety considerations into our own workplace culture.

Gender Equity in Our Supply Chains

Gender equity is a fundamental human right and a necessary foundation of sustainable supply chains. We seek to engage with more women-owned businesses throughout our supply chains and to support women in making their own decisions on health, finances, and career development.

Achieving gender equity will require embedding it across all areas and levels of our business, as well as incorporating it into all human rights due diligence and activities such as human rights impact assessments. In 2022, we took several steps to advance gender equity, including:

- Joining the International Center for Research on Women's (ICRW) Gender Equity Worker Engagement Group (GEWEG). We joined to co-finance harmonized, gender-responsive worker voice and employee engagement tools—including a comprehensive set of e-learning modules for suppliers on gender equity. The GEWEG initiative helps member companies understand and address challenges women face and advance their well-being across supply chains.
- Partnering with BSR's HERproject, now called RISE (Reimagining Industry to Support Equality), to support 21,000 workers—including 14,000 women—with health and financial skills training from 2019 to 2022. We have also helped build capacity among workers and factory managers to combat workplace gender-based discrimination.
- Participating in the Better Cotton Working Group on Decent Work & Gender.
- Joining the Resilience Fund for Women in Global Value Chains to support women-led organizations committed to tackling systemic gender-based issues.

Learn more about our approach to promoting equity across Amazon's value chain, advancing gender-inclusive funding opportunities, and enhancing supplier diversity.

Fair Wages

Ensuring workers receive fair pay remains a global, cross-industry issue. Amazon is working to gain a better understanding of wage payments throughout our supply chains to inform more meaningful supplier engagements and enhance our human rights due diligence processes.

In 2022, we updated our Supply Chain Standards to include stronger expectations around fair wages and benefits. The updates specify requirements on equal pay for equal work and include more specific language on gender equity in pay.

We recognize progress on critical issues such as wages and working hours requires us to continually evaluate our own processes, finding ways to improve systems for tracking and addressing fair wages. Responsible purchasing practices are a key part of addressing issues regarding fair wages.

Improving Supplier Health

We are committed to helping suppliers keep their people safe and healthy. In collaboration with Catalyst Management Services, Amazon worked to support suppliers in Bangladesh by providing a medical hotline for workers and their families during the COVID-19 pandemic. We also helped factories establish crisis-response plans. From December 2021 to March 2023, we provided access to critical health care services for over 40,000 workers.

Through a partnership with international nonprofit PATH, we implemented a project in Vietnam to help address the impacts of COVID-19 on workers in our supply chain. We worked to strengthen health care systems and delivered radio broadcasts to workers to share information on preventing the spread of the virus.

In 2022, we continued our partnership in India with Swasti, a global nonprofit committed to ensuring access to quality health care for workers in marginalized communities. Together, we established a helpline and health protocols for workers returning to work after COVID-19. Swasti also delivered critical mental health, health care, and social support to workers, their families, and communities. By the end of 2022, Swasti reached 2,288 workers in Amazon's India supply chain.

Learn more about our partnership with PATH.

Responsible Recruitment and Freely Chosen Employment

Forced labor is one of the most complex and challenging human rights issues. It requires a holistic approach, including commitment, resources, and innovative solutions from governments, international organizations, civil society, and the private sector. Amazon does not tolerate forced labor in our operations or value chain. We partner with external organizations on holistic approaches to combating forced labor and ensuring vulnerable workers, especially foreign migrants, have access to transparent information on working conditions, including pay, hiring practices, and contract terms. We also partner directly with our suppliers to help them establish management systems that protect their workers from forced labor vulnerability.

In 2020, we launched a responsible recruitment capacity-building program to support suppliers and workers in preventing and remediating forced labor issues. This includes ending worker-paid recruitment fees—a practice prohibited by our Supply Chain Standards—and requiring suppliers to reimburse any fees paid by workers at any phase of the recruitment process. As of 2022, we enrolled 50 suppliers who were found to use recruitment fees into our program.

In our engagement with suppliers, we prioritize those suppliers with recruitment fees or other identified high-risk factors. Remediation guidebooks are available to suppliers for all human rights issue categories, alongside Amazon-led discussions, trainings, capacity building, and on-site reviews.

We continue to work with the International Organization for Migration, the Issara Institute, the Responsible Business Alliance, and Verité to offer supplier training on responsible recruitment practices. Trainings focus on modern slavery risks and responsible recruitment, including how to implement effective risk mitigation controls, identify issues in recruitment and hiring processes for migrant workers, and draft implementation plans for addressing these. We have trained 66 suppliers through these partnerships.

Access to Effective Worker Voice Mechanisms

We strive to give people opportunities to voice their concerns in a safe and confidential manner. To do this, we connect suppliers and service providers with various trusted tools, products, and systems to hear directly from workers about their experiences and support the resolution of issues from workers' perspectives.

Through our Worker Voice program, we gather insights through a variety of methods, including worker surveys, focus group discussions, interviews, and digital tools. The program has five purposes:

- Improving ways that workers in our supply chains can report concerns
- Gaining worker insights
- Providing supplier capacity building to improve their worker engagement and communication systems
- Supporting Amazon businesses to conduct human rights due diligence
- Engaging in industry efforts to establish good practice

By the end of 2022, we helped connect 88 sites across seven countries—Bangladesh, Cambodia, China, India, Malaysia, Pakistan, and Thailand—with independent grievance mechanisms. Of the 702 worker grievances raised, 95% were verified and resolved. The other 5% were pending or under investigation at the end of the year.

We also facilitate connections between suppliers and global partners to enhance worker access to effective grievance mechanisms, including the Amader Kotha Helpline and Ulula. With these mechanisms, suppliers can gather feedback directly from workers to inform more effective issue resolution. In 2022, 781 worker grievances, of which 576 related to workplace concerns, were reported through the Amader Kotha Helpline, with the top five issues being around benefits, leave, wages, termination, and verbal abuse. Ulula is available to workers in Cambodia, China, India, and Pakistan and, during 2022, wage concerns were the issues most frequently reported.

Report to Resolution: the Amader Kotha Process in Action

Whenever grievances are raised through the Amader Kotha Helpline, an independent helpline serving the ready-made garment sector in Bangladesh, the organization works with factory management to address and resolve issues as quickly as possible. For example, during 2022, a worker called the Hotline to raise a concern that machinery in one of our production facilities was sparking. The caller requested that the Helpline engage management to ensure immediate action was taken.

Amader Kotha quickly reached out to our supplier's management, who confirmed they would resolve the issue by replacing the relevant motor immediately. As a result, the issue was resolved within an hour, and is a good example of how Amader Kotha is helping bring about timely remediation to worker concerns and improving working conditions in manufacturing facilities.

Focus on Vulnerable Groups

We recognize that, while forced labor can be found among any population, certain groups are particularly vulnerable. We are committed to ending instances of trafficking for those groups, including:

- Domestic and foreign migrants
- Contract, agency, and temporary workers
- Refugees
- Asylum seekers
- Ethnic/religious minorities and displaced persons
- Young or student workers

In the U.S., Amazon supports Polaris, a nonprofit leading a social justice movement to address sex and labor trafficking. Amazon Web Services (AWS) delivers financial and technical support to enhance Polaris's data collection and improve trafficking identification and prevention. Since Polaris began operating in 2007, a Trafficking Hotline has handled over 82,000 situations of human trafficking.

Learn more about how we are working with Polaris to prevent human trafficking.

Throughout 2022, we maintained our partnership with Thorn, a technology company working to defend children from sexual abuse. Thorn leverages AWS machine learning tools to power its Safer and Spotlight products, using Spotlight to help identify child sex trafficking victims. Thorn's Safer product helps tech companies detect, identify, and report child sexual abuse material (CSAM) on their content-hosting platforms. From 2018 to 2022, Safer has helped platforms detect nearly 1,230,000 CSAM files. Safer is also made available to AWS customers in the Marketplace to enable them to detect, review, and report CSAM in their own services and resources.

We are also an official corporate sponsor of Truckers Against Trafficking, an organization that exists to educate, equip, and mobilize members of the trucking, bus, and energy industries to combat human trafficking. We incorporate Truckers Against Trafficking modules into trainings for our internal fleet drivers on identifying and responding to potential human trafficking victims. In 2022, we trained more than 4,800 Amazon transportation associates.

We maintained our membership of the Child Rights in Business Working Group led by The Centre for Child Rights and Business. Through this commitment, we worked to design virtual training on child labor prevention and remediation, as well as young worker management, which will be delivered to the central human rights team and key internal stakeholders in 2023.

Learn more in our Modern Slavery Statement.

Looking Forward

Building more responsible supply chains is an ongoing endeavor and requires collective effort from Amazon, our suppliers, and a network of expert partners. We will continue to engage partners and suppliers on efforts to progress against our key commitment areas.

Khairiya Masoud has incorporated Digital Earth Africa into the curriculum for her students at the State University of Zanzibar.

Product Sustainability

Customers want products that align with their values, which include products created with sustainability in mind. We recognize the opportunity Amazon has to increase customer access to products that are more sustainable and efficient by design. We've started with our own Amazon Private Brands products and Amazon devices, adopting practices that support responsible supply chains, circular economies, decarbonization, and safer chemicals.

Goals

Goal
Invest in wind and solar farm capacity equal to the energy used by all Echo, Fire TV, and Ring devices worldwide by 2025[29]

Progress
100%

Renewable energy capacity procured that is equal to the expected energy use of all Echo, Fire TV, and Ring devices globally in 2025

Goal
Make Amazon device packaging 100% recyclable by 2023

Progress
79.5%

Of devices launched in 2022 have 100% recyclable packaging

Actions

Amazon Private Brands and Devices

100%

Of cotton for Amazon Private Brands apparel products was procured from more-sustainable sources by the end of 2022[30]

100%

Of man-made cellulosic fibers—including rayon, viscose, lyocell, and modal—for Amazon Private Brands apparel products were procured from more-sustainable sources by the end of 2022[31]

60%+

Of devices in customers' homes had Low Power Mode, up from over 50% in 2021

Committed to reducing deforestation risks for food, grocery, and consumable Private Brands products containing ingredients such as palm oil, paper, beef, cocoa, and tea

Climate Pledge Friendly

818M

Climate Pledge Friendly-certified products sold

550K

Climate Pledge Friendly products available, a 120% increase from 2021

52

Climate Pledge Friendly sustainability certifications, up from 36 in 2021

19

Customer experience enhancements highlighting sustainable products, such as new search functions and clearer digital badges

10%

More product views through search, detail pages, and recommendation widgets, when labeled Climate Pledge Friendly

Our Approach

We want Amazon products to support responsible supply chains and contribute to growing circular economies. From groceries and cleaning supplies to fashion and devices, we carefully consider the materials and lifecycle impacts across our product categories.

In 2022, we developed a responsible sourcing roadmap informed by findings from our first comprehensive commodity risk assessment for Amazon devices and Amazon Private Brands products. The roadmap focuses on key materials, including cotton, wood, pulp, paper, cobalt, and copper, and guides businesses in achieving greater visibility and positive impacts across our supply chains.

In December of 2022, Amazon Private Brands and Whole Foods Market publicly committed to limit deforestation risks in food, grocery, and consumable Private Brands products containing palm oil, soy, paper products, beef, cocoa, coffee, and tea. Additionally, we successfully achieved previously published apparel goals on man-made cellulosic fibers and cotton. To ensure better standards for cotton more widely, we continue to sponsor and participate in the Responsible Sourcing Network's due diligence initiative, YESS (Yarn Ethically & Sustainably Sourced), to identify and address forced labor in cotton production. In 2022, YESS released its first Standard for Fabric Mills and an updated Standard for Spinning Mills, enhancing efforts to improve cotton supply chain due diligence.

Beyond responsible commodity sourcing, Amazon Private Brands is making progress toward measuring environmental impacts in our supply chain and promoting safer chemistry. As part of the Sustainable Apparel Coalition, we encourage suppliers to evaluate their practices using the Higg Facility Environmental Module (FEM), a self-assessment which evaluates performance and prioritizes opportunities for improvement across seven impact areas: air emissions, carbon emissions, chemicals management, environmental management systems, waste, wastewater, and water.

In 2022, we joined the Copper Mark, which oversees the world's only comprehensive social and environmental assurance program for the copper industry. We also participate in the Responsible Minerals Initiative's working groups devoted to smelter engagement and, in 2022, became Governance Committee members of the Public-Private Alliance for Responsible Minerals Trade.

Additionally, in 2022, we supplemented our existing formulated products Restricted Substance List and Food Contact Materials Restricted Substance List with a new commitment to comply with the Apparel and Footwear International RSL Management (AFIRM) Group's Restricted Substances List for apparel, apparel accessory, and footwear products in North America, Europe, and Japan.

Amazon's fourth-generation Echo Dot.

Our Progress

Materials and Agricultural Commodities Sourcing

The following table includes 2022 updates on our goals to source key commodities more responsibly. In the following table, Whole Foods Market refers to Whole Foods Market in the U.S., except where stated otherwise.

In-Scope Product Categories
1) Amazon Private Brands (includes Amazon Basics, Amazon Essentials, among others)
2) Grocery (includes Fresh, Happy Belly, Aplenty, and Amazon Kitchen)
3) Whole Foods Market

Materials and Agricultural Commodities			
Commodity or Material	**Goal or Ambition**	**Progress**	**In-Scope Product Categories**
Beef	Amazon and Whole Foods Market fresh and frozen beef sourced from regions with low deforestation risk or with full supply chain traceability in our Grocery Private Brands in North America and Europe by the end of 2025.	New goal set in 2022.	Grocery Private Brands, Whole Foods Market
Cocoa	For Grocery Private Brands selection in North America and Europe, cocoa products such as chocolate bars, baking chocolate, and trail mix certified against sustainability standards by Rainforest Alliance, Fairtrade International, Fair Trade USA, or other independently verified third-party certifications (such as Cocoa Horizons) by 2025.	All 365 by Whole Foods Market-brand chocolate bars, chocolate chips, and baking chocolate are certified by Fair Trade. Grocery Private Brands selection in Europe already meets these standards.	Grocery Private Brands, Whole Foods Market
Coffee	For Grocery Private Brands selection in North America and Europe, all coffee (including instant and ready-to-drink coffees) certified against sustainability standards by Rainforest Alliance, Fairtrade International, or Fair Trade USA by 2025.	All Whole Foods Market and 365 by Whole Foods Market-packaged coffee is ethically sourced and certified according to an approved third-party certification, including Rainforest Alliance, Fair Trade USA, or Fairtrade International. Grocery Private Brands selection in Europe already meets these standards, while most of the North American selection is certified.	Grocery Private Brands, Whole Foods Market
Cotton	Source all cotton for Amazon Private Brands apparel products from more-sustainable sources by the end of 2022.	Amazon Private Brands achieved this goal for cotton. We define more sustainable as sourced from recycled materials, from farms certified as producing organic cotton, or through the Better Cotton Initiative.	Amazon Private Brands
Eggs	Source cage-free eggs in our Grocery Private Brands whole-shell egg products in North America and Europe. Whole Foods Market: 100% cage-free eggs sold in our dairy cases and used in kitchens and bakeries.	In 2022, we expanded our cage-free shell and liquid eggs commitment to apply to our entire section in North America, three years ahead of schedule. At Whole Foods Market, all shell and liquid eggs sold in our dairy cases and used in our kitchens and bakeries in the U.S. go beyond cage-free and are audited to one of four production systems to meet Whole Foods Market's Animal Welfare Standards for Laying Hens.	Grocery Private Brands, Whole Foods Market
Leather	Source all leather for our Amazon Private Brands apparel and shoe products from more-sustainable sources by the end of 2023.	Amazon Private Brands did not source any leather products in 2022. We define more sustainable as sourced from tanneries that meet the Leather Working Group's Bronze-level or higher.	Amazon Private Brands
Man-Made Cellulosics	Source all man-made cellulosic fibers—including rayon, viscose, lyocell, and modal—for Amazon Private Brands apparel products from more-sustainable sources by the end of 2022.	Amazon Private Brands achieved its 2022 goal for man-made cellulosic fibers. We use the nonprofit Canopy's tools and reports to help avoid fibers sourced from endangered forests, endangered species' habitats, or other controversial sources.	Amazon Private Brands

Materials and Agricultural Commodities

Commodity or Material	Goal or Ambition	Progress	In-Scope Product Categories
Palm Oil	Use palm oil certified against sustainability standards in our Private Brands food and nonfood grocery products in North America and Europe. Whole Foods Market is committed to expanding this sourcing standard to nonfood items under its exclusive brands.	Amazon uses palm oil certified against sustainability standards in our Private Brands food and nonfood grocery products in North America and Europe. In a small number of cases, palm oil credits may be used to cover small volumes and complex derivatives. We revisit these cases annually with applicable suppliers and agree on plans to transition to physically certified palm oil where possible. All 365 by Whole Foods Market-brand food items containing palm oil, palm kernel oil, palm fruit oil and palm shortening are produced using sustainable oil products.	Grocery Private Brands, Whole Foods Market
Polyester	Increase the use of recycled fabrics in Amazon Private Brands apparel products, including moving from conventional to recycled polyester, and launching products made from innovative recycled fibers.	We are increasing the use of recycled fabrics in Amazon Private Brands apparel products, including moving from conventional to recycled polyester.	Amazon Private Brands
Pork	In addition to complying with the European restrictions on the use of gestation crates, Amazon is committed to source gestation crate-free pork by 2025 in our Grocery Private Brands fresh pork products in North America.	In the EU, Private Brands products comply with requirements on gestation crate-free pork. In North America, Private Brands pork currently is not crate-free. We have engaged a consultant to help define outcomes and are engaging with our supply chain to set objectives and timelines. At Whole Foods Market, all pork sold in the Meat Department in the U.S. and Canada is crate-free and certified by the Global Animal Partnership. In the United Kingdom (UK), all pork sold in the Meat Department must meet the requirements of Whole Foods Market UK's five-step animal welfare program.	Grocery Private Brands, Whole Foods Market
Seafood	Source only Responsibly Farmed or sustainable wild-caught fresh and frozen Whole Foods Market seafood.	All fresh and frozen Whole Foods Market seafood is responsibly farmed or sustainably wild-caught (including frozen and breaded options, appetizers, smoked seafood, and seafood dips). This applies wherever our seafood is sourced. Grocery Private Brands expanded the scope of our seafood policy to apply to any product in which seafood makes up more than 5% or is in the top three ingredients. Previously it only applied to fresh or frozen single-ingredient products.	Grocery Private Brands, Whole Foods Market
Soy	Assessing in 2023.	We are working with a third-party advisor to analyze soy used in our complex supply chain and will share more information by the end of 2023.	Grocery Private Brands, Whole Foods Market
Tea	For Grocery Private Brands selection in North America and Europe, all bagged tea certified against sustainability standards by Rainforest Alliance, Fairtrade International, or Fair Trade USA by 2025.	All 365 by Whole Foods Market tea is certified by Fair Trade USA or Rainforest Alliance.	Grocery Private Brands, Whole Foods Market
Wood, Paper, and Pulp	In North America and Europe, Grocery Private Brands are committed to sourcing paper products such as paper towels, toilet paper, and facial tissue that are certified against sustainability standards, or as recycled by organizations such as the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), and Programme for the Endorsement of Forest Certification (PEFC). Make all 365 by Whole Foods Market paper products either from 100% recycled materials or certified by FSC.	All new Amazon Private Brands clothing product swing tags are made from paper certified by FSC. We are conducting further analysis of the paper packaging used in our Grocery Private Brands and will share more information by the end of 2023. All 365 by Whole Foods Market paper products (paper towels and toilet paper) are either made from 100% recycled materials or certified by FSC.	Amazon Private Brands, Grocery Private Brands, Whole Foods Market

Devices

Part of our mission to be Earth's most customer-centric company is to offer more-sustainable devices without compromising on quality or cost. This includes designing our devices with carbon reduction in mind and manufacturing them using responsibly sourced materials. It also involves confirming the sustainable credentials of our devices with trusted third-party certifications.

Reducing the Carbon Impact of Devices

To deliver high-quality devices that are more sustainable, affordable, and accessible, we incorporate lifecycle assessments into the design process. Through this, we measure carbon emissions at all stages—from production, through customer use, and up to disposal.

We aim for each generation of Amazon devices to be more carbon-efficient than the last. We are also focused on making devices more energy-efficient to reduce emissions associated with customer product use.

Today, new devices feature Low Power Mode, and we are delivering updates to introduce this feature for older devices already in customers' homes. By the end of 2022, over 60% of devices in customers' homes had Low Power Mode, up from over 50% in 2021.

In 2020, Amazon became the first consumer electronics company to commit to addressing device electricity use through renewable energy development, starting with our Echo devices. At the end of 2022, we contracted enough renewable energy capacity through new wind and solar farms to equal the expected energy use of Echo, Fire TV, and Ring devices globally in 2025. Some of these farms are operational today, and others are currently under construction, expected to begin operating in 2023–2024.

We are also working with suppliers to increase their use of renewable energy in manufacturing Amazon devices. In 2022, we announced a collaboration with the Carbon Trust to establish technical specifications for decarbonizing the use phase of Amazon devices. We will set practical, impactful steps for mitigating emissions at the customer stage of the device lifecycle, aiming to launch a completed standard in 2023.

We are also working with imec, an international research and development organization, to improve environmental impact data for semiconductors. Through imec's Sustainable Semiconductor Technologies and Systems (SSTS) program, we are developing consistent measurement methods, data-exchange standards, and a collaborative net-zero carbon roadmap for fabless system companies and fab, material, and equipment providers.

> **Learn more** about our devices, services, and products, including related waste management and responsible sourcing practices.

Device Materials Sourcing Standards

We seek to deliver more-sustainable devices by continually improving our materials and sourcing standards.

We incorporate recycled materials into many new devices. In 2022, we launched Echo, Fire TV, Fire tablet, Kindle, and smart home products that, depending on the item, contain:

- Up to 75% recycled plastic (versus 60% in 2021)
- Up to 100% recycled yarn (consistent with 2021)
- Up to 100% recycled aluminum (consistent with 2021)
- Up to 90% recycled magnesium (versus 70% in 2021)
- 50% recycled plastic in certain device power adapters (consistent with 2021)

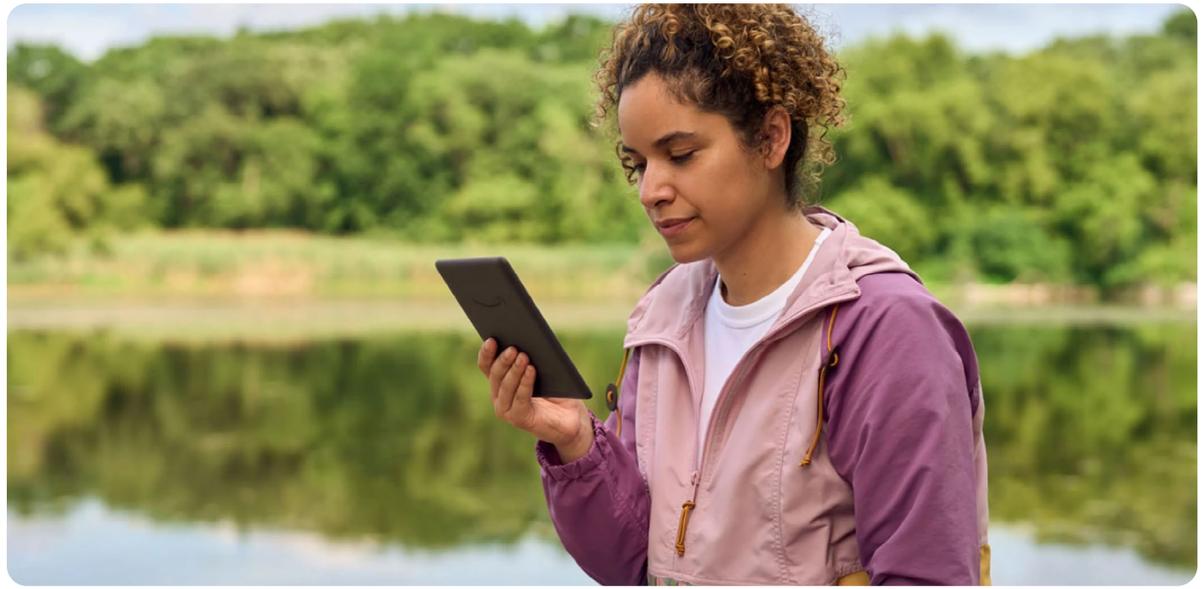
We recognize that environmental impacts associated with our devices extend to packaging. In 2020, we set a very ambitious goal to make Amazon device packaging 100% recyclable by 2023, a first for the consumer electronics industry. Of our 2022 product launches, 79.5% (31 of 39) had 100% recyclable packaging.

In 2022, we implemented additional smelter due diligence protocols as we work toward certifying 100% of tin, tungsten, tantalum, and gold mineral smelters and refiners in our supply chain using a recognized minerals assurance program.

Additionally, we worked with suppliers to increase smelter audits and remove nonconformant smelters from our supply chain. We will continue to partner closely with our businesses and engage suppliers and upstream actors on the importance of responsible mineral sourcing auditing mechanisms and smelter certification.

We have also formalized our devices safer chemistry program, which improves the material health of devices through:

- Proactively identifying chemicals of concern
- Analytically screening hazardous substances
- Managing proactive compliance for chemicals in our supply chain



Amazon is increasing recycled content in our devices, including Echo, Fire TV, Fire tablet, Kindle, and smart home products.

Device Certifications

We partner with trusted, transparent external certifications to validate the sustainability of our products and clearly communicate this to customers through the Climate Pledge Friendly badge. Since 2020, many of our Echo, Fire TV, Fire tablet, Kindle e-reader, and smart home devices and accessories have received sustainability certifications included in the Climate Pledge Friendly program. Many of these products qualified for the Climate Pledge Friendly badge by achieving the Carbon Trust's Reducing CO_2 certification, which highlights products with an associated carbon footprint that is decreasing annually.

The Amazon Smart Thermostat is the first Amazon device to be ECOLOGO Silver certified, demonstrating it meets standards for reducing environmental impacts at one or more product lifecycle stages. To further reduce the thermostat's environmental impact, we have also now introduced a new carbon-emissions-optimization feature. By monitoring local grid emissions data in real time, the thermostat can automatically adjust set temperature points to reduce energy use during high-emission periods, such as when grids are using less sustainable power sources.

Learn more about device energy efficiency.

Sustainable Product Selection

We aim to provide customers with more-sustainable alternatives throughout their shopping experience, offering them products with improvements in at least one sustainability area. Amazon's flagship sustainable shopping program, Climate Pledge Friendly, is how we do this.

Climate Pledge Friendly Product Certification

As of December 2022, the Climate Pledge Friendly program added 16 certifications, giving selling partners 52 ways to qualify for Climate Pledge Friendly. The new certifications recognize improvements in at least one aspect of sustainability, from recycled content to energy efficiency. This year's additions include, but are not limited to:

- EU Energy Label grades A and B
- U.S. Environmental Protection Agency (EPA) Design for the Environment and WaterSense
- Fairtrade International
- NATRUE
- STANDARD 100 by OEKO-TEX
- Business + Institutional Furniture Manufacturers Association Level
- GreenCircle

Climate Pledge Friendly also highlights products designed for circularity. Today, customers can choose from 20,000 refurbished products through Pre-Owned Certified, a new certification recognizing products that are inspected, cleaned, and repaired to excellent functional standards. Pre-Owned Certified aims to extend the life of products, reducing e-waste and raw material extraction. The inclusion of Pre-Owned Certified highlights the value we place on product reuse and circularity, giving customers access to high-quality refurbished electronics.

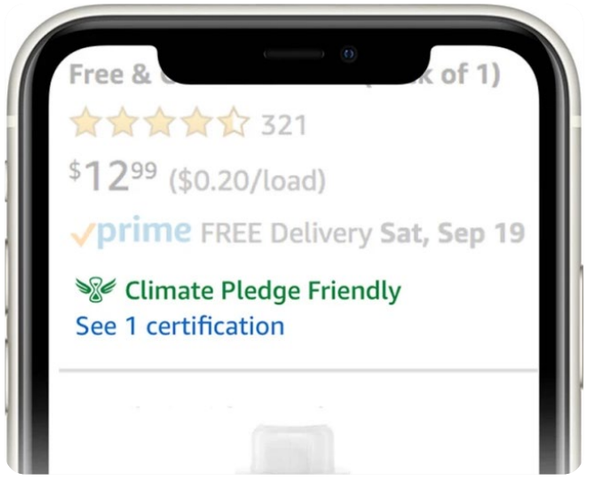
Customer Shopping Experience

We have enabled 19 shopping features, such as new search functions and clearer digital badges, to highlight Climate Pledge Friendly products. These features have helped Amazon customers switch to a Climate Pledge Friendly product—something that occurs the first time customers purchase a Climate Pledge Friendly product in a category for which they have only purchased non-Climate Pledge Friendly products over the prior two-year period. Customers can now shop for products across Apparel, Home, Electronics, and Kitchen categories, meaning customers now have access to 550,000 Climate Pledge Friendly products, up from 250,000 in 2021.

We have also seen strong adoption of the Climate Pledge Friendly program from Amazon Business customers. Amazon Business helps companies create guided buying policies, which place preference on sustainable products qualified through the Climate Pledge Friendly program. As of December 2022, 18,000 businesses had these buying policies in place.

Looking Forward

We are committed to continually improving product sustainability, enhancing responsible materials and commodities sourcing, and collaborating with supply chain partners to drive adoption of new regulations and compliance requirements. To promote responsible sourcing practices more widely, we will continue to advocate for robust standards that limit negative social and environmental impacts. We will also continue to improve device efficiency while delivering new and better ways for customers to shop for more-sustainable products.



Climate Pledge Friendly product badge on Amazon.com.

People

We respect the dignity, rights, and needs of the people connected to our business around the world. That starts with striving to be Earth's best employer and safest place to work in the industries in which we operate, taking a people-first approach to ensure those in our workforce feel valued and supported. We extend this same approach beyond our operations as we aim to work with more diverse suppliers and deliver positive impact in our communities.

In This Section

55 Enhancing the Amazon Employee Experience
60 Improving Employee Health and Safety
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70 Increasing Supplier Diversity
72 Supporting Global Communities

Dana, a Fulfillment Associate in New York, received her General Education Diploma (GED) through Amazon's Career Choice program. She's now enrolled in the Career Choice industry certification program, the next step on her journey to a future in environmental engineering.

Enhancing the Amazon Employee Experience

Passionate, engaged employees are an important part of what makes Amazon successful. We want our employees to build fulfilling careers with resources and benefits that support them in reaching their full potential. It's why we are investing in attracting, retaining, and developing employee talent today and in the future, and why we are committed to listening and learning from our employees with communication channels that enable continual engagement and improvement.

Goals

Goal
Invest $1.2B to provide access to skills training and education to over 300,000 U.S. employees by 2025

Progress

110K

Employees that have participated in Career Choice globally since it launched in 2012, a 120% increase from 50K in 2021

Actions

$19

Average pay for employees in customer fulfillment and transportation roles in the U.S., up from $18 an hour in 2021, representing a $1B investment in increased wages in 2022

388K

Global responses received through MyVoice and Voice of the Associate (VOA) boards in 2022

$4K

Offered in travel and lodging reimbursement for non-life-threatening medical procedures not available within 100 miles of the patient's home for employees and covered dependents

1.6M

Responses received daily in 2022 through the Connections employee feedback program, which was expanded to 29 languages across 59 countries

55

New countries where we partner with Workplace Options to offer mental health benefits

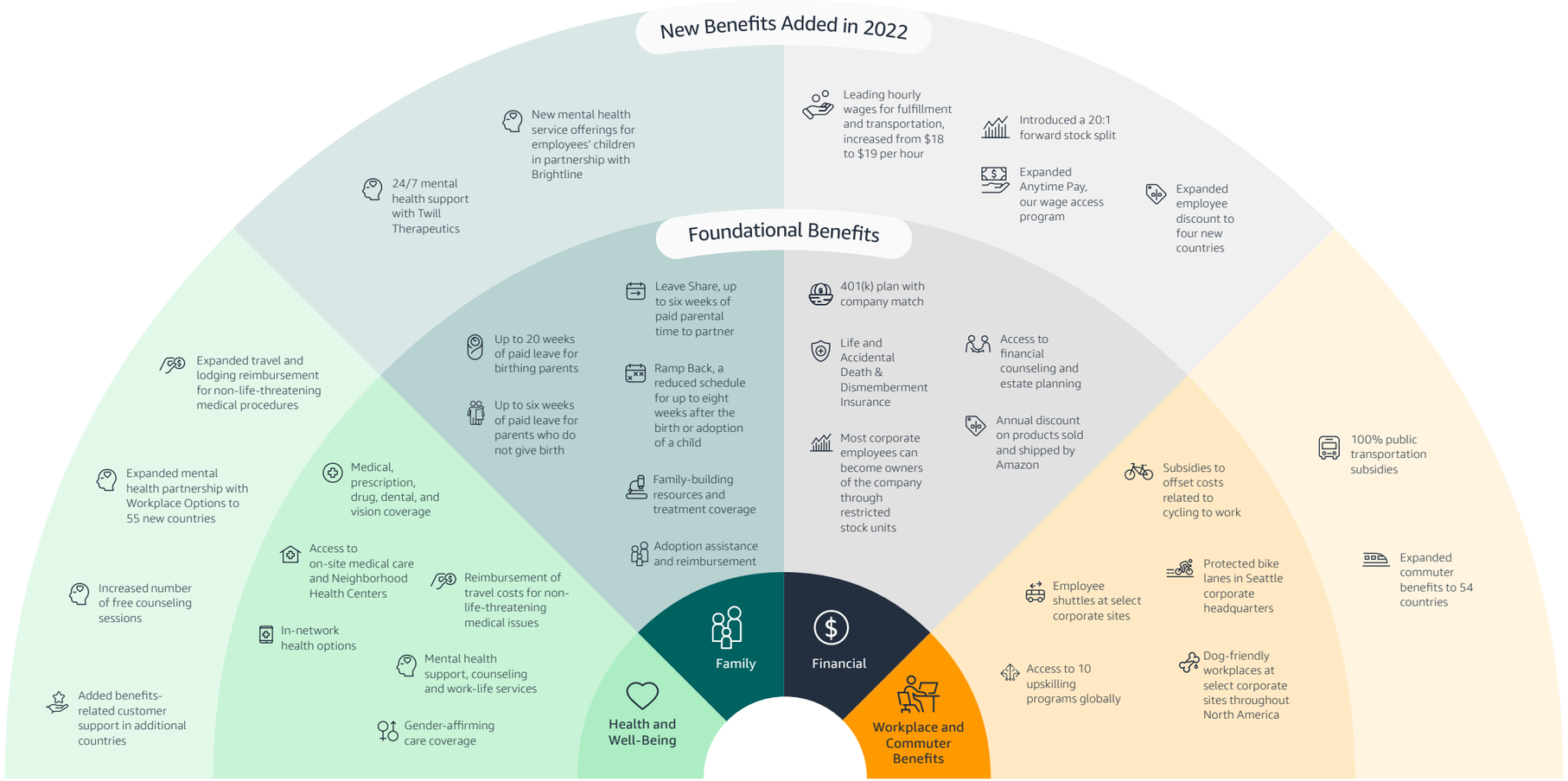
Our Approach

We aspire to be Earth's best employer. We can only achieve this if we create valuable employee experiences, informed by their needs and opinions. We listen to our employees to understand how we can design benefits that work for them and their families, optimizing resources for affordability, flexibility, choice, and personalization.

Alongside competitive benefits, we seek to prepare our employees for tomorrow's jobs, with training and development programs that build skills and support economic mobility. We follow several steps to deliver trainings with real-world applications:

- Analyze the labor market to identify in-demand jobs
- Leverage market insights into trainings to help fill roles
- Support employees with multimodal resources and career coaching

In everything we do, we aim to create a culture of mutual respect and progress, underpinned by candid, constructive communication. It's why we operate with an "open door" policy, in which employees can reach out to anyone in management with suggestions, concerns, or feedback.



The benefits and options available to employees are contingent upon the eligibility details of their respective roles and the associated domestic and international working arrangements.

Our Progress

Compensation, Pay Flexibility, and Financial Support

In September 2022, we announced pay increases for U.S. front-line employees, with average pay for those in customer fulfillment and transportation increasing from $18 to $19 per hour—an investment of nearly $1 billion in 2022. This is just one of the ways in which we promote financial success and competitive pay.

To make pay access as easy, instant, and flexible as possible, we expanded our wage access program, Anytime Pay, to all employees across U.S. operations, corporate, and technology networks. Previously, most employees received regular pay once or twice monthly; Anytime Pay lets employees access up to 70% of eligible earned pay, whenever and without fees, giving them control of their pay schedule.

Did You Know?

Anytime Shifts let employees choose their own hours and schedule, bringing more flexibility or structure to their role. This enables caregivers, for example, to have more consistent shifts that work for their specific life needs.

Pay Equity

We are prioritizing pay equity. A review of 2022 compensation, including base pay, cash bonuses, and stock, shows women in the U.S. earned 99.5 cents, and women globally earned 99.6 cents, for every dollar men earned performing the same jobs. Historically marginalized groups in the U.S. earned 99.5 cents for every dollar white employees earned performing the same jobs.

Comprehensive and Inclusive Benefits

Amazon offers a range of great benefits that support employees and eligible family members, including domestic partners and their children. These comprehensive benefits begin on the first day of employment and include health care coverage, paid parental leave, ways to save for the future, paid college tuition, and other resources to improve health and well-being.

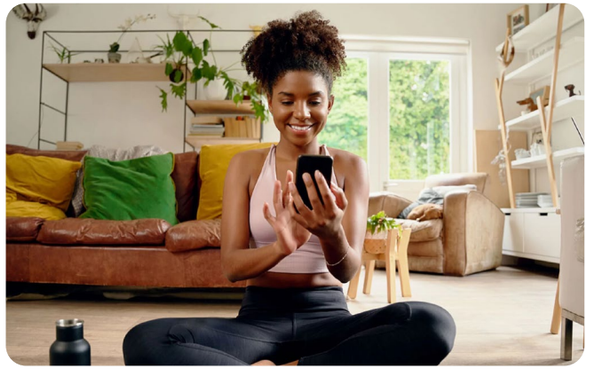
We strive to offer health and wellness benefits that meet employees' needs, no matter what their circumstances are, and in 2022, worked to reach nearly $10 billion in total benefits investment. Throughout the year, we supplemented our existing benefits offering, including expanding travel and lodging reimbursement up to $4,000 for non-life-threatening specialty services when no in-person treatment options exist within 100 miles of the patient's home and when virtual care is not an option. These specialty services are available to eligible employees and covered dependents and include maternity (elective abortion and infertility), cardiology, and substance abuse disorder services.

Alongside comprehensive medical care, we offer inclusive mental health support and, in October 2022, enhanced our U.S. employee assistance program (EAP) to include:

- **Increased free counseling sessions:** Employees can now access five free counseling sessions per issue annually.
- **Enhanced mental health benefits:** In the U.S., we offer mental health services for employees' children in partnership with Brightline, a leading virtual health support provider. Brightline offers confidential, personalized support for those aged 18 months to 17 years—including virtual visits with therapists, psychiatrists, and coaches, plus on-demand resources for parents and caregivers. This is available to Amazon employees who are enrolled in an Aetna or Premera health plan. Outside the U.S., we've worked with EAP partner Workplace Options to bring mental health benefits to 55 new countries. Updates include 24/7 access to licensed clinicians, free counseling and coaching, mindfulness training, and suicide-prevention resources.
- **Expanded resources for living benefit**: We launched a partnership with the National Alliance on Mental Illness, a mental health organization dedicated to building better lives for millions of Americans affected by mental illness. The partnership will focus on enhancing employee access to community-based family and peer support services.

We also enhanced our global EAP to include:

- **Twill Therapeutics:** Employees can now access 24/7 mental health support with Twill Therapeutics' digital, self-guided program. This offering is available to employees and their families across seven countries.
- **Mental health awareness training:** We delivered training on navigating mental health concerns to thousands of U.S. people leaders. A self-guided module is available online for all employees.



Workplace Benefits

We recognize people want jobs that fit seamlessly into their lives. To address this, we offer various shift and schedule options, including seasonal work and permanent full- or part-time positions. We also provide morning, day, night, and weekend shifts so people can work the times that best fulfill their needs.

Because we know not everyone has the same routine week to week, as well as providing fixed schedules we offer flexible options that let employees choose when, and how much, to work. Amazon's Anytime Shifts lets eligible employees choose shift schedules using an app to plan their workweek to suit them. Throughout 2022, more than 100,000 employees opted in to Anytime Shifts, gaining access to more flexible shift plans.

During the year, we also expanded our global commuter benefits to provide additional services to employees across the globe. For example, where available, Amazon offers benefits including subsidizing public transportation, bike share, bike lease, or bike maintenance costs. As of the end of 2022, employees across 54 countries are eligible for commuter benefits.

Upskilling Our Employees

In 2019, we launched our Upskilling 2025 pledge with a commitment to upskill 100,000 employees by 2025. In 2021, we announced we would triple that commitment by 2025 to provide prepaid education and technical skills training to help 300,000 hourly employees move into higher-paying roles. To achieve this goal, we maintain 10 global upskilling programs with various eligibility requirements. Through these, we offer prepaid education, industry certifications, technical skills training, and apprenticeships to meet employees' needs, no matter where they are on their professional journeys.

One of the most notable upskilling opportunities we offer is Career Choice, a program providing employees with skills training, professional certificates, language learning, and college degrees. Over 110,000 employees have participated in Career Choice since it launched in 2012, receiving support from a global network of over 400 educational partners. In 2022, we extended Career Choice courses for eligible U.S. employees to include English as a second language (ESL), high school completion programs, and prepaid college tuition. To prepare employees for future environmental sustainability roles, we introduced three new Career Choice pathways that lead to Environmental Technician, Energy Technician, and Solar Technician career opportunities. Employees can also pursue industry certifications for in-demand fields like transportation and environmental sustainability, or a bachelor's degree with one of our partner schools.

Career Choice is just one way to give employees access to the education needed to take on in-demand, higher-paying jobs. Examples of other upskilling initiatives we offer include the Amazon Technical Apprenticeship Program, which helps military veterans transition into tech careers, with many apprentices converting into full-time employees with Amazon, and Machine Learning University, which teaches machine learning capability to those with basic skills in software development. We view these as important investments in our employees and in the communities where we operate.

Alongside Career Choice updates, we announced additional new and enhanced programs in 2022, including:

- **Surge2IT:** An update to our existing Surge2IT program, with a pilot that expanded it to employees with nontechnical backgrounds who are interested in a career in IT.
- **Sustainability training:** We engaged 155,200 employees on sustainability programming, 46,000 of whom completed training modules across sustainability topics.

As well as investing to upskill employees, we look to support community education.

Learn more about our community upskilling efforts.

Employee Engagement

We value employee feedback—both positive sentiments and constructive comments on areas for development. We offer opportunities, from all-hands meetings to one-on-one discussions, for engaging with leaders, raising issues, and suggesting improvements.

Employee Feedback Mechanisms

We continually gather employee feedback to support our aim of meeting evolving employee needs. Throughout 2022, to improve feedback mechanisms, we expanded our employee relations centralized investigation team to cover the U.S., Canada, Mexico, Costa Rica, the United Kingdom (UK), Egypt, the United Arab Emirates, and Saudi Arabia, instead of managing this work locally. We also introduced a new U.S. workplace investigations excellence training program, which was delivered to over 2,800 human resources (HR) professionals.

Amazon maintains mechanisms for employees to voice concerns of unethical conduct, including an Ethics Line for anonymously reporting potential violations of our Code of Business Conduct and Ethics.

Employees have several feedback routes. While not all-encompassing, investigations provide a snapshot of various avenues and a reflection of where most feedback is received. Employees can access escalation mechanisms through the Ethics Line, executive escalation, their manager, and HR business partners, to name a few.

Associate Roundtables, Forums, and Safety Committees

Associate Roundtables are held regularly for leadership and hourly employees to discuss pressing issues. Associate Forums create opportunities for employees to connect with site leaders on decisions that impact the site or employee experience. In 2022, we held more than 125 forums across the UK, Poland, Slovakia, Czech Republic, Spain, and Morocco.

Globally, various sites also have Associate Safety Committees to gather employee input on relevant safety matters. Throughout 2022, nearly 200,000 employees participated in over 10,000 committee meetings, collectively developing nearly 25,000 actions to increase on-site safety.

Real-Time Employee Feedback Through Connections

Connections is a real-time, companywide feedback mechanism for listening to and learning from employees to improve the employee experience. Employees respond to Connections questions at 5,100 locations in 59 countries. Each day, Connections questions are delivered via computers, workstation devices, and hand scanners. Employees may choose to answer or not answer any question. Individual responses are aggregated and shared with managers at the team level to maintain confidentiality.

1.6 million responses are generated daily across Amazon. In a year, Connections receives responses from 4.7 million people. Connections analyzes response data and provides insights to managers who can then take relevant actions for improvement. In 2022, we included questions in Punjabi, Dutch, and Urdu for the first time, bringing the total number of available languages to 29.

Associate Feedback

With our MyVoice online tool—and in-person VOA boards—we are creating a stage for employees to share ideas. Available globally, these options allow employees to voice opinions to leadership teams who will reply directly, enabling quicker, more collaborative issue remediation.

Throughout 2022, we expanded MyVoice to Australia, Singapore, India, China, Brazil, the EU, and Amazon's Middle East and North Africa region. We also introduced it for new business areas, including Amazon Fresh, Delivery Experience Robotics, and Amazon Data Services.

Through MyVoice and VOA boards, we received 389,479 global responses in 2022. By the end of the year, MyVoice achieved a total reach of 91.3% of Amazon Stores globally.

Appeals

We maintain a defined appeals process. Across the U.S. and Canada, eligible employees can use an online, paperless appeals service to challenge certain disciplinary actions. Claims are reviewed by the applicable manager to verify policies have been correctly applied. Where this is not the case, appropriate remediation can then be taken.

We are continually updating the process and centralizing it across U.S. and Canadian customer fulfillment and sort center operations. During 2022, Amazon Logistics enhanced appeals for hourly employees, making it easier for people to speak up and share their opinions.

Learn more about our approach to ethical business.

Freedom of Association

We respect freedom of association and our employees' right to form, join, or not join labor unions or other lawful organizations of their choosing, without fear of reprisal, intimidation, or harassment. These rights should be exercised in an informed and thoughtful manner.

Globally, Amazon applies or is party to dozens of collective bargaining agreements at national, regional, sectoral, and enterprise levels. In 2022, we established a European Works Council; we held our first meeting in April 2023. In March 2022, we reaffirmed our position on freedom of association, including our approach to human rights and collective bargaining.

Looking Forward

In the U.S., we are exploring new avenues for supporting employees' financial health; in Europe, we have set a 2023 benefits roadmap that focuses on health care, finance, and time away from work. And, because every person's circumstances are unique, we will strive to advance our offering, including family planning tools, to reach employees with the resources they need. We also seek to scale training opportunities, adding additional resources to Career Choice and offering new programs. To prepare more employees for future sustainability roles, we are working to build new pathways for in-demand roles and programs to upskill our workforce.

We continually look to evolve the employee experience. To understand where there's room for growth, we will enhance engagement channels and identify strategic imperatives. With greater insight into employee sentiment, we can then work on delivering benefits and training opportunities that more closely align with people's needs.

Amazon employees at our Central Virginia fulfillment center.

Improving Employee Health and Safety

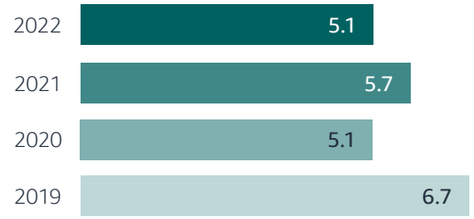
Our people are the heart and soul of our operations and the reason we prioritize safety in everything we do—every day, in every country, across every aspect of our business. Everyone working at Amazon is encouraged to embrace the mentality that safety starts with them. As a business, we continually enhance our safety processes, investing in key improvements and technologies to reduce and eliminate safety risks across our operations.

Actions

24%

Improvement in global Recordable Incident Rate in 2022 versus 2019

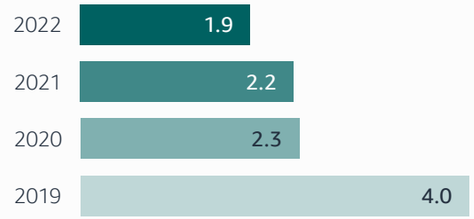
Worldwide RIR



53%

Improvement in global Lost Time Incident Rate in 2022 versus 2019

Worldwide LTIR



5.5M

Site inspections conducted globally in 2022

1.4M

Employees engaged through our Safety Leadership Index

Customer orders being prepared for shipment at our Windsor, Connecticut, fulfillment center.

Our Approach

Our goal is to be the safest workplace across the industries in which we operate. We use a risk management approach to guide our prioritization and decision-making, which includes:

- Measuring safety performance to assess program effectiveness and to identify and remove hazards
- Assessing safety processes and adherence to standards through audits and inspections
- Engaging employees to continually improve safety in our operations

We use various measures to mitigate operational safety risks. We also invest in high-impact solutions that make machines, equipment, and processes safer, while implementing preventive measures such as training, standard operating procedures, and personal protective equipment.

Our efforts are guided by a management system that aligns with International Organization for Standardization (ISO) 45001:2018—a voluntary international standard for health and safety management. To drive continuous improvement, we measure progress against two kinds of indicators:

- Lagging indicators, such as incident rates.
- Leading indicators, which are preventive measures. Our leading indicators include data from inspections, assessments, audits, employee and leader surveys, one-to-one conversations, focus groups, and on-site observations from employees.

Our Progress

Measuring Safety Performance

Data helps us assess the effectiveness of our efforts and identify potential improvement areas. It also equips operations leaders and safety professionals with measurable, objective insights that support risk detection and mitigation. With this in mind, we track two metrics that help us understand annual safety performance:

- **Recordable Incident Rate (RIR):** denotes how often an injury or illness occurs at work—measured in injuries per 200,000 working hours—according to local occupational safety and health reporting requirements.
- **Lost Time Incident Rate (LTIR):** measures the number of injuries and illnesses per 200 working hours that result in time away from work.[32]

When examining 2022 against 2019, we are proud to report our global RIR has improved by 24%, while global LTIR improved by 53%.[33] Between 2021 and 2022 alone, we improved RIR by 11% and LTIR by 14%. Of recordable incidents reported in 2022, about 55% resulted from work-related musculoskeletal disorders. The remaining 45% were primarily due to slips, trips, falls, and falling objects.

Progress since 2019 is due, in large part, to our long-term strategy for continuous improvement. Many practices that were underway prior to the pandemic—including employee engagement and physical and mental health support—continue to be foundational. And we've continued building on them with new technologies, including artificial intelligence (AI), robotics, sensors, and innovative engagement tools and learning methodologies.

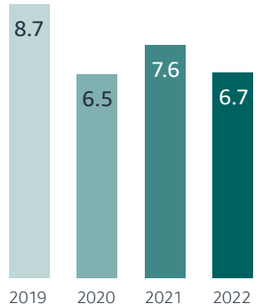
As well as reducing RIR and LTIR, we work every day to help prevent injuries and tragedies, such as fatalities, in our workplaces. Sadly, sometimes they do occur from personal health causes, natural disasters and work-related activity. In 2022, we lost three Amazon employees in the U.S. to work-related fatalities, which is defined as an occupational injury or disease sustained or contracted during an employee's tenure with their employer. We provide support and counseling to any employee who may need it following such a tragedy. In each instance, we conduct thorough internal investigations, implement corrective actions, and work with regulatory authorities as they conduct their own independent reviews.

While safety metrics include only Amazon employees, we are also driving advancements for business partners within our fulfillment, freight, and delivery networks.

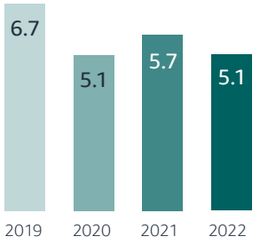
Learn more in our 2022 Safety, Health, and Well-Being Report.

Safety Performance

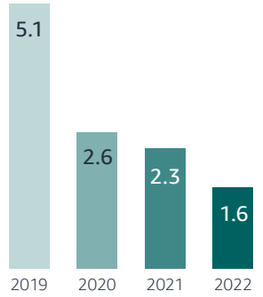
U.S. RIR:
23% improved



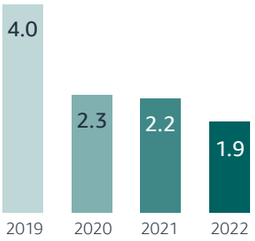
Worldwide RIR:
24% improved



U.S. LTIR:
69% improved



Worldwide LTIR:
53% improved



Assessing Safety Processes

Audits and inspections assure that effective resources and protocols are in place for identifying, eliminating, or controlling safety hazards. During inspections, we check that our safety measures and controls are working to reduce or mitigate potential risk, as designed.

Inspections include checks of critical safety controls for high-risk operations such as contractor maintenance, machinery use, maintenance and repair, dock and yard safety, and powered industrial truck operations. In 2022, we conducted over 5.5 million inspections globally, up from 2.5 million in 2020.

Auditing verifies our compliance with national and international regulations and standards in over 150 jurisdictions globally. We conduct audits for areas such as occupational health, safety management, and facility and technical safety. Findings are tracked by our management system and used to identify root causes, improve compliance, and update internal standards and procedures.

Did You Know?

We encourage anyone interested in seeing our fulfillment facilities to sign up for one of our Amazon Tours, either virtually or in person. More than 1 million people experienced our tours in 2021 and 2022.

Engaging Employees on Safety

In 2022, we improved our employee-led safety observation program to make it easier for employees to share suggestions and concerns. As well as representing another leading indicator against which to track progress, the observation program helps facilitate timely, meaningful conversations on safety topics, helping leadership engage with the issues that are most important to Amazon employees. We are encouraged by the preliminary results we are seeing and the potential reduction in lagging indicators as a result of this program.

As well as providing effective communication routes, we seek to enhance understanding through safety trainings that help people take ownership of their own safety. Employees receive critical safety information on their first day of employment, followed by job- and process-path-specific training. During 2022, mental health awareness training was delivered to thousands of managers, with guidance on what to do if mental health concerns arise at work. We also enhanced our worldwide Emergency Response Preparedness training with realistic emergency scenarios. This was further strengthened with an on-site tour to highlight visible cues and provide clear instruction on how to handle shelter or evacuation events.

Learn more about how we engage employees on safety through Associate Safety Committees.

Our Safety Leadership Index

In 2018, we created the Safety Leadership Index (SLI) to measure employee and leader perceptions of safety. The index helps us get ahead of safety risks by gathering feedback through monthly questions, delivered via employees' scanners and computers.

Questions cover topics such as sentiment around leaders' safety commitment, safety awareness, safety structures, safety involvement, and safety accountability. Feedback is anonymous, confidential, and intended to drive improvement. In 2022, we engaged over 1.4 million Operations employees through the SLI across more than 3,300 sites in 34 countries.

Looking Forward

We continue to invest in safety-related projects across Amazon and will invest approximately $550 million in 2023. These projects include capital improvements, new safety technology, vehicle safety controls, and engineered ergonomic solutions that aim to reduce and eliminate risks.

We are constantly striving to improve safety for our employees, partners, and communities every day. We know there is more work to do on our journey to become the safest employer across the industries within which we operate. Our commitment to safety has never been stronger—and it will only continue to grow.

Amazon CEO, Andy Jassy, and CEO of Worldwide Amazon Stores, Doug Herrington, visited a fulfillment center in Nashville, Tennessee, to understand how employee health and safety is prioritized.

Creating Inclusive Experiences

Amazon connects the world by breaking down barriers and delivering experiences that advance culture, information, business, and communities. Our ability to innovate on behalf of our customers relies on the perspectives and knowledge of people from all backgrounds.

Goals

Priority	Progress
Global Priorities	
Increase the number of women in executive (director or above) positions in science, technology, engineering, and math (STEM)-focused roles by at least 35% in 2022	**Increased representation by 66%**
Conduct deep dives by region to inform our operational planning and establish priorities in 2023	**Goal achieved. We set new goals for 2023 and published them on our global diversity, equity, and inclusion (DEI) website**
Increase global engagement with students from underrepresented communities by expanding Amazon Future Engineer's computer science learning programming in 2022	**3.2M students reached globally through Amazon Future Engineer, including more than 1.9 million in the U.S.**
U.S. Priorities Incremental hiring was slower in the second half of 2022, which impacted our overall hiring rates and progress toward our goals	
Hire 100,000 U.S. military veterans and military spouses by 2024	**Hired 30,400 military veterans and 9,600 military spouses in 2022, totaling 75,800 since July 2021. Learn more**
Increase hiring of veterans by at least 23% and military spouses by at least 15% in 2022	**In 2022, we saw a lower number of veterans and military spouses hired across the U.S., down 12% and 5%, respectively. Learn more**
Increase representation of Black and Latino/a/x executives[34] (director or above) by at least 35% in 2022	**Increased Black representation by 39%. Learn more** **Increased Latino/a/x representation by 32%. Learn more**
Increase representation of Black and Latino/a/x corporate employee[35] representation by at least 30% in 2022	**Increased Black representation by 25%. Learn more** **Increased Latino/a/x representation by 27%. Learn more**
Conduct a racial equity audit to evaluate the impacts of our policies, programs, and practices on hourly Operations employees in 2022	**The audit is underway and will inform our approach to policies and practices in Operations in the future**

Actions

$150M
Invested by Amazon Catalytic Capital, a new initiative to invest in venture capital funds, accelerators, incubators, and venture studios that support historically marginalized entrepreneurs

20K
Amazon Web Services (AWS) employees signed up for the AWS Inclusion Pledge in its inaugural year

100/100
Score on the Human Rights Campaign's Corporate Equality Index for the fifth year in a row, ranking Amazon among the Best Places to Work for LGBTQ+ Equality

100%
Score on the Disability Equality Index

VetsinTech 2022 Employment Award

Our Approach

Our vision is to create inclusive experiences everywhere. Amazon has changed the world through its focus on the customer—and we are approaching DEI and accessibility the same way. Our strategy focuses on using technology wherever possible to create inclusive experiences for employees, customers, and communities around the world.

- **Employee experience:** Guided by Amazon's Leadership Principles, we are committed to a culture that creates a safer, more productive, more diverse, and more just work environment. As a part of this, we are building equitable and inclusive experiences for our people, and into our products, processes, and programs.
- **Community experience:** With our size, speed, and innovative culture, we take bold, deliberate action to drive change on a global scale. Through our inclusive products, services, and touch points in neighborhoods around the world, Amazon aims to be a leader in using science and data to help achieve a more equitable society for the future.
- **Customer experience:** We work backward from our customers in everything we do. From deliveries at the front door to satellites in space, we are focused on creating accessible solutions that make life easier for people of all backgrounds.

We set three priorities in 2022:

- **Accelerate inclusive experiences outside of the U.S.:** We deliver global initiatives for Indigenous people, the LGBTQIA+ community, military veterans and their spouses, and people with disabilities. We are making self-identification available in countries where Amazon currently operates. Where legally allowed, employees can voluntarily share their demographic characteristics, which helps us better understand their needs and drive more impactful programming.
- **Advance DEI through technology:** We see an opportunity to address the needs of the future by taking an approach that blends human judgment and artificial intelligence. While it's still early, we are already seeing that technology helps us inspect and remove potential bias from our people processes and improve human decision-making. This will help us accelerate our progress at scale across every aspect of the workplace.
- **Take a more holistic approach to DEI in our talent strategy:** We use data and science to find opportunities to improve the experience across the entire employee lifecycle, optimizing processes related to hiring, onboarding, professional development, promotion, and retention. This includes continued investment in our existing upskilling programs, such as our global mentorship program, and Amazon Technical Academy, which trains nontechnical employees to transition into software engineering careers.

Learn more about Amazon's approach to inclusivity on our new global DEI website.

Our Progress

Employee Experience

Amazon has more than 1.5 million employees from varying backgrounds who are dedicated to inventing and delivering for customers around the world. Through internal programs, we are helping employees become better allies, enhancing the experiences of employees and customers, and providing hiring and upskilling opportunities.

Affinity Groups

We want to create a sense of belonging for everyone at Amazon. To advance this, we support several affinity groups where employees globally can connect over shared experiences. As of 2022, Amazon has 13 affinity groups. More than 126,500 employees across 1,500 chapters in more than 50 countries participate in one or more of these groups. Amazon affinity groups lead seminars and activities around many cultural holidays, such as Asian American and Pacific Islander Heritage Month, Black History Month, and U.S. National Hispanic Heritage Month, and include Amazon People with Disabilities (AmazonPwD), Glamazon, Black Employee Network, and Families at Amazon, among many others.

Learn more about our affinity groups.

Awards and Recognition

We are honored to have been recognized by various organizations as a great place to work throughout 2022. We know there's always more to do, but here's some of the recognition we've received as a top employer:

- #1 LinkedIn's Most Desired Place to Work in the U.S.
- #2 *Fortune*'s Most Admired Companies in 2022
- #14 *Forbes*' World's Best Employers in 2022
- #1 AmbitionBox Best Place to Work in India among Mega Companies
- Disability:IN Best Places to Work for Disability Inclusion for the fifth consecutive year, with a first-time score of 100%
- Human Rights Campaign Best Places to Work for LGBTQ+ Equality, with a perfect score for the fifth consecutive year
- Diversity Brand Summit 2022 Winner
- *Forbes*' list of America's Best Employers for Veterans
- VetsinTech 2022 Employment Award

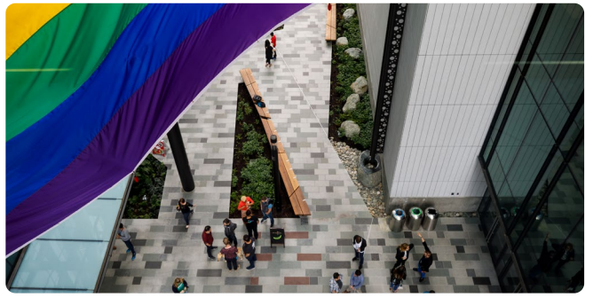
Women

Amazon advocates for gender diversity, equal opportunities, and inclusive spaces for women to thrive and feel comfortable at work and beyond. We celebrate women around the world and are committed to inspiring the next generation of women in tech. To help foster inclusion, we:

- Innovate with leading inclusive technology (such as artificial intelligence) to create tools which help eliminate biases in hiring that women and others often face in the workplace.
- Invest in upskilling programs, such as our global mentorship program and Amazon Technical Academy, which trains nontechnical employees to transition into software engineering careers. These programs empower mothers and other women who are pivoting into new careers, pursuing higher education, or taking on other challenges.
- AWS helps women and girls succeed in technology careers and STEM. Numerous STEM-focused employee communities exist within Amazon and AWS, including Women in Technology, Women in Engineering, Women in AI/ML (artificial intelligence/machine learning), Women in Big Data, and She Builds. The AWS GetIT program encourages young students, especially girls, to pursue careers in technology.

LGBTQIA+

Whether by sponsoring Pride celebrations around the world or creating new opportunities for LGBTQIA+ entrepreneurs, Amazon is committed to supporting our LGBTQIA+ employees, customers, and communities across the globe. We proudly seek to create inclusive experiences everywhere and in 2022, we:



A Pride flag waves above employees at Amazon's headquarters in Seattle, Washington.

- Launched Amazon's first Global LGBTQIA+ Office to advance LGBTQIA+ equity companywide and hired our first Head of LGBTQIA+ Strategy and Programs.
- Created meaningful partnerships with key community groups that lead the way on LGBTQIA+ equity globally, including but not limited to the National Center for Transgender Equality, Rainbow Railroad, Lesbians Who Tech & Allies, and the Point Foundation—through which we sponsored scholarships for LGBTQIA+ students of color as part of the largest LGBTQIA+ scholarship fund in the world.
- Expanded our global support of LGBTQIA+ employees by launching dozens of new chapters of Glamazon, Amazon's LGBTQIA+ employee affinity group, in China, India, South Africa, and more.

People with Disabilities

Historically, we have provided resources that support employees with disabilities—from our AmazonPwD affinity group to a business strategy for educating leaders on supporting employees with disabilities. In 2022, we:

- Installed sign language video stations in operations centers. The stations feature a rotating series of videos about sign language topics and words, improving communications with colleagues who are deaf or hard of hearing. Since the program launched, we have installed stations across eight countries, with plans to expand to additional countries in the future.
- Signed, through Amazon India, a memorandum of understanding with India's Department of Empowerment of Persons with Disabilities (DePwD), in the Ministry of Social Justice and Empowerment, to provide upskilling and employment opportunities through job fairs to tens of thousands of people with disabilities across the country. The tripartite agreement between DePwD, Skill Council for Persons with Disability, and Amazon focuses on upskilling, certification, and entrepreneurship, and is designed to increase employment opportunities for people with disabilities.
- Earned a Best Places to Work for Disability Inclusion designation for the fifth year in a row after getting a perfect score on the Disability Equality Index.

Military Spouses and Veterans

We recognize the diverse backgrounds and experiences that veterans and military spouses bring to Amazon and how they strengthen the workforce. We proudly employ veterans and military spouses across multiple businesses, including Operations, Sustainability, Alexa, and AWS. In 2022, we:

- Trained military members, veterans, and their spouses for in-demand technical roles at Amazon through company-funded programs like the Amazon Technical Apprenticeship and Career Choice, and continued to make progress on our pledge to hire 100,000 U.S. veterans and military spouses by 2024. In 2022, we hired 30,400 military veterans and 9,600 military spouses.
- Donated through the Urgent Need Program in locations in Washington state, Texas, and Washington, D.C., and assisted in reducing veteran suicide by coordinating the U.S. Department of Veterans Affairs $20M Mission Daybreak suicide prevention grand challenge, as well as providing support to finalists through an accelerator course and technical mentorship.
- Leveraged Amazon's resources to support veteran service organizations globally by growing our partnership with the Royal British Legion and advancing initiatives like Program Honor, established by Amazon Global Military Affairs.

Colleen Aubrey, Senior Vice President of Ad Products and Technology, hosts author Shelmina Babai Abji at an employee fishbowl to discuss leadership strategies for women.

Indigenous

Amazon is committed to supporting Indigenous leaders and creating solutions to help close educational and professional gaps among members of Indigenous communities. Amazon's significant investment in reaching Indigenous students will play a pivotal role in increasing equitable access and participation in computer science and related fields. In 2022:

- Through the Amazon Future Engineer program, Amazon announced a commitment to support Indigitize Computer Science, an initiative created in partnership with The One Gen Fund to support Indigenous schools and school districts in accessing culturally responsive computer science curriculums.
- Amazon and its Indigenous Program Management Office were named the Corporate Advocate of the Year by The National Center For American Indian Enterprise Development for commitment to supporting economic development in Native American communities and creating positive change in Indian country.
- For several years, Amazon has been a primary corporate sponsor of the American Indian Science and Engineering Society—an organization dedicated to increasing the representation of the Indigenous peoples of North America and the Pacific Islands in STEM studies and careers.

Racial Equity and Inclusion

To serve our customers around the world, with all of the diversity contained therein, we need to have a comparably diverse workforce to build inclusive experiences for all. Throughout 2022, we developed tech-based solutions for complex issues such as health care access; advanced affordable housing in our local communities; and partnered with others to amplify our impact. To reach a diverse pool of talent:

- We partnered with Hispanic-serving institutions (HSIs), historically Black colleges and universities (HBCUs), women's colleges, and tribal colleges, as well as nonprofits such as Management Leadership for Tomorrow, to strengthen recruitment and retention of Black, Latino/a/x, and Indigenous talent.
- AWS launched Machine Learning University, a free program for students at community colleges, HBCUs, and HSIs. The program delivers trainings in database, artificial intelligence, and machine learning concepts, and aims to increase the number of Black and Latino/a/x students earning bachelor's degrees in engineering.
- We partnered with professional organizations and participated in events including AfroTech, the Black Engineer of the Year STEM Conference, Grace Hopper Celebration, and Lesbians Who Tech & Allies.
- We launched our annual SHINE Summit, dedicated to the development of Amazon's Black women leaders, with plans to expand the program for all our Black, Indigenous, and people of color women leaders.
- We served as a primary corporate sponsor of the American Indian Science and Engineering Society—an organization dedicated to increasing the representation of Indigenous peoples of North America and the Pacific Islands in STEM studies and careers.
- We announced a commitment of $2.25 million to support Indigitize Computer Science, a new initiative created in partnership with The One Gen Fund to support Indigenous schools and school districts in accessing culturally responsive computer science curriculums.
- We expanded the reach of our childhood-to-career computer science education program, which provides underserved and underrepresented communities access to STEM education and allocated funding for employees to champion change in underrepresented communities via the AWS Inclusion, Diversity, and Equity Innovation Fund.

Learn more about how Amazon builds an inclusive culture.

Did You Know?

In July 2022, AWS launched the Inclusion Pledge, creating shared language around inclusion to help leaders demonstrate their commitment to DEI. By the end of the year, over 20,000 AWS employees had signed the pledge.

Indigenous at Amazon affinity group leaders, President Fawn Sanchez and Vice-President Caleb Dunlap.

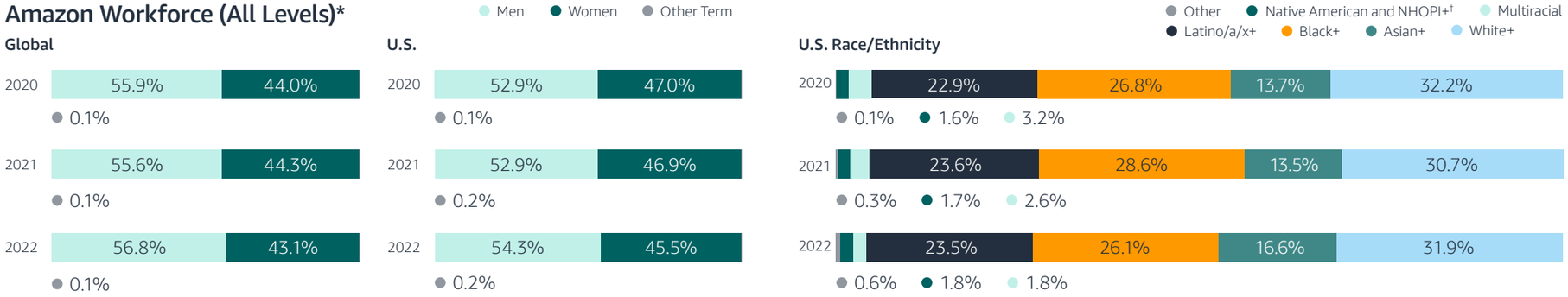
Increasing Diverse Representation

We are committed to ensuring that our employee population represents the diverse communities we serve. This includes leveraging technology to remove potential bias from both the hiring and the performance review processes.

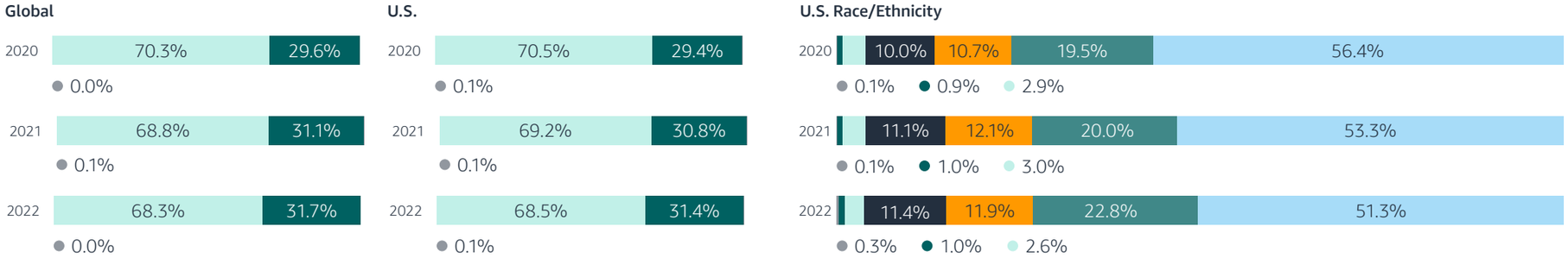
Amazon Representation by the Numbers

By the end of 2022, we achieved or exceeded many priorities set for the year. We increased the number of women in executive STEM-focused roles by 66%, exceeding our goal of 35% by 31 percentage points. We exceeded our goal to increase representation of Black executives by achieving a 39% increase. We also increased representation of Black+ and Latino/a/x+ corporate employees by 25% and 27% respectively, and increased representation of Latino/a/x+ executives by 32%. While we saw a lower number of veterans and military spouses hired across the U.S., down 12% and 5% respectively, we remain on track to meet our pledge of hiring 100,000 veterans and military spouses by 2024. We also increased the percentage of women people managers in both our global and our U.S. workforces, as well as the percentage of Native American and NHOPI+, Latino/a/x+, and Asian+ people managers in the U.S.

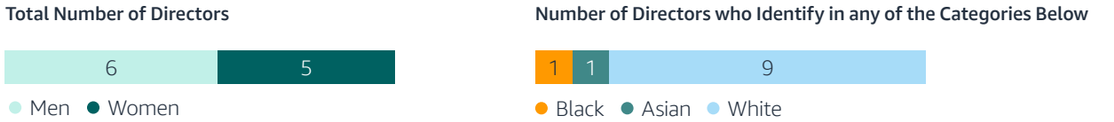
Amazon Workforce (All Levels)*



People Managers



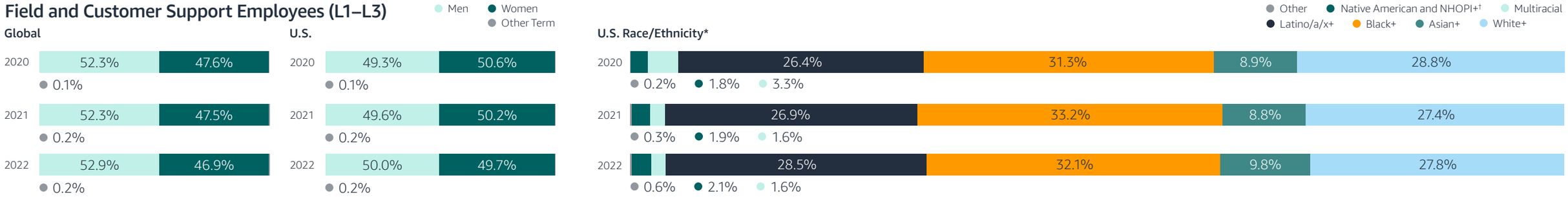
Board Diversity



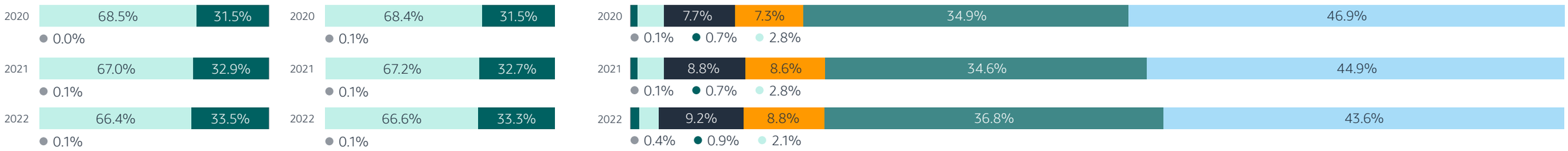
* In late 2021, we updated our race/ethnicity reporting to begin counting multiracial employees under each separate group with which they identify. We refer to this as the "plus system" because multiracial employees are "plussed in" to each category with which they identify. As such, category data may not add up to 100% exactly. We also count employees as they currently identify, both for race and ethnicity and for gender. Therefore, when an employee updates their identification, Amazon counts that employee according to their new identification at all times in their career at Amazon, which may change historic data and reporting. Data in this report reflects employee identification as of December 31, 2022.

† NHOPI+: Native Hawaiian or Other Pacific Islander.

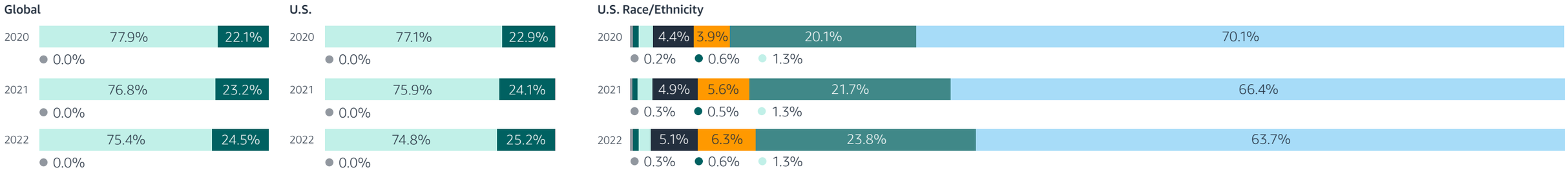
Field and Customer Support Employees (L1–L3)



Corporate Employees (L4–L7)



Executives (L8+)



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† NHOPI+: Native Hawaiian or Other Pacific Islander.

Community Experience

We continue to invest in making communities more inclusive as well, by bridging the digital divide and creating access.

Amazon Future Engineer

In 2022, we reached 3.2 million students globally through Amazon Future Engineer, including more than 1.9 million in the U.S. The program aims to increase access to STEM education for students from underrepresented communities, and is currently available in the U.S., the United Kingdom, France, Canada, India, and Germany.

Learn more about Amazon Future Engineer.

We announced the 25 participants of our inaugural Impact Accelerator for Women Founders. The program will help women founders accelerate their businesses with up to $250,000 in cash and AWS Activate credits, as well as trainings and mentoring, investor networking opportunities, and ongoing advisory support.

We showcase women-led startups selected to join the next AWS Impact Accelerator. Through the accelerator, they will receive funding, AWS services, training, and more resources to grow their businesses.

Also in 2022, we launched Amazon Catalytic Capital to invest $150 million into venture capital funds, accelerators, incubators, and venture studios that support historically marginalized entrepreneurs. We will focus our investments in funds that target Black, Latino/a/x, Indigenous, women, and LGBTQIA+ founders, with plans to support over 10 funds and over 200 companies in the first year of launch.

Learn more about how we are supporting global communities.

Customer Experiences

In everything we do, we work backward from our customers. This includes offering products and services that help close gaps in access and opportunity.

Amazon Studios implemented an Inclusion Policy and Playbook for the U.S., an open-source guide that provides clear directives, guidelines, and resources to create an equitable experience for our casts, crews, and audience members and covers the entire production process. Amazon Studios teams in Europe are now developing similar playbooks. We continue to partner with leading Latino/a/x actors to create Prime Video watchlists that uplift the voices, diverse experiences, and stories of the Hispanic and Latino/a/x communities. We also celebrated and raise visibility for the Asian and Pacific Islander creative community via partnerships with Amazon Music, Prime Video, Amazon Books, and Alexa.

Worldwide Stores and Amazon Fashion are bringing more Black, Latino/a/x, and other underrepresented designers and sellers to our customers through collaborations with partners like Harlem's Fashion Row. AWS is building responsible artificial intelligence and machine learning to help our customers harness the power of technology for good and mitigate potential risks and bias against underrepresented groups.

Our devices and entertainment businesses continue to build and expand accessibility features—from Alexa and Fire TV to Audible and Prime Video—to help people be more connected, more entertained, and more independent. We are building accessibility features that help support vision, hearing, mobility, learning, and speech. For example, Fire TV devices are compatible with Bluetooth hearing aids. Fire tablets include VoiceView screen reader so they can be navigated with voice instead of touch.

Fire tablet users can also select Switch Access to interact with their Fire tablet (Fire OS 6 and higher) with the touch of a button, blink of an eye, or puff of a sip-and-puff.

We are also working to increase digital accessibility. Project Kuiper—Amazon's network of low-Earth-orbit satellites—will bring faster, more affordable broadband to unserved or underserved communities.

Did You Know?

Project Kuiper expects to launch its first production satellites in the first half of 2024 and plans to give its earliest customers access to the service later that year.

In 2022, we also focused on building and strengthening our supplier diversity processes, technologies, and partnerships.

Learn more about how we are advancing supplier diversity.

Looking Forward

Together, we are shaping a better future. Addressing the big issues of today and delivering more inclusive experiences for employees and customers requires us to stay curious and keep learning.

Doug Herrington, CEO of Worldwide Amazon Stores, and Amazon employees meet at a fulfillment center in Stockton, California.

Increasing Supplier Diversity

Research from The Billion Dollar Roundtable indicates that building a diverse supply chain brings multiple benefits: it enhances our procurement capabilities, increases innovation, and supports economic growth. Advancing supplier diversity and inclusion (SDI) is important to Amazon because it's good for our business, aligns with our customers' expectations, and is the right thing to do for society as a whole.

Actions

$3.3B

Spent with 375 certified[36] diverse suppliers

$1.56B

Reported spend with Tier 2 diverse suppliers[37] by Amazon's Tier 1 suppliers

22

Regional in-person events hosted for diverse and small business owners across the U.S.

2,200+

Diverse suppliers registered in Supplier Connect, a newly launched vendor-registration portal

728

Total certified diverse suppliers in Supplier Connect

Dorielle Price and Jamelah Tucker, sisters and co-owners of EasyPeasie, a vegetable blends company based in Hallandale Beach, Florida.

Our Approach

In 2022, we focused on building and strengthening our SDI processes, technologies, and partnerships. Our vision is to execute a world-class global SDI strategy that enables long-term economic sustainability in the communities in which we operate. To achieve this, we are prioritizing three actions:

- Driving impact globally by scaling existing diverse businesses and onboarding new ones
- Partnering with global diversity advocacy organizations to engage more diverse suppliers in the sourcing process
- Standardizing SDI operating procedures across the company and ensuring oversight

Our Progress

Driving Impact with Diverse Businesses Globally

Through our SDI approach, we seek to include more diverse-owned and small businesses in our procurement processes.[38] In 2022, we focused on increasing the diversity of certified U.S. Tier 1 suppliers—companies we contract with to provide goods and services, such as marketing, construction, and professional services to operate our businesses.

We look to external organizations to confirm the diversity of our supply chain. Being certified as a diverse supplier with Amazon requires valid certification from one of five major U.S. supplier diversity agencies:

- The National Minority Supplier Development Council (NMSDC) or regional affiliate
- Women's Business Enterprise National Council (WBENC) or regional affiliate
- National LGBT Chamber of Commerce (NGLCC)
- National Veteran Business Development Council (NVBDC)
- Disability:IN

Amazon also accepts certifications from the U.S. Small Business Administration's (SBA) HUBZone program and 8(a) Business Development program, and the U.S. Department of Transportation.

The key to increasing sourcing with certified diverse-owned businesses is understanding current supply chain diversity. Starting in 2022, we initiated reviews of our existing U.S. supply base and sourcing practices. Through this foundational work, we identified that Amazon spent $3.3 billion with 375 certified U.S. Tier 1 diverse suppliers in 2022. We will continue to track and measure our progress in this area, leveraging a renewed, companywide SDI focus and a commitment to further action.

In addition to increasing the number of U.S. certified diverse suppliers and their associated spend, we encourage our Tier 1 suppliers to include diverse suppliers in their own sourcing activities. During 2022, 141 of Amazon's Tier 1 suppliers reported spending $1.56 billion with Tier 2 diverse suppliers.

Partnering with Global Diversity Advocacy Organizations

Strategic partnerships help us grow and nurture supplier relationships. By the end of 2022, Amazon held corporate membership with each of the major U.S. diversity advocacy organizations. Additionally, we were invited to join WBENC's Board of Directors, strengthening our partnership and creating more opportunities for women-owned businesses to work with Amazon. We also joined two global supplier diversity agencies—WEConnect International, the global certification body for women-owned businesses, and the Canadian Aboriginal and Minority Supplier Council.

Throughout the year, we hosted 22 regional in-person events for diverse and small business owners across the U.S., starting in Connecticut before expanding to other states. Our aim was to create opportunities for diverse suppliers to network with our procurement and leadership teams. We also hosted quarterly virtual webinars on "How to do business with Amazon" and participated in virtual and in-person events to meet with diverse businesses. Our largest virtual event was held in partnership with WBENC and was attended by 435 women-led business enterprises.

To expand our capacity for engagement, we attended various U.S. national and regional conferences for the first time, meeting with diverse business owners at NMSDC, WBENC, NGLCC, NVBDC, and U.S. Black Chambers events.

Standardizing SDI Operating Procedures and Ensuring Oversight

We depend on supply chain partners who reliably provide goods and services across Amazon to keep us running seamlessly. Our supplier network spans the globe, and we want to drive our SDI efforts wherever we operate. Throughout 2022, we continued building fundamental SDI procedures to meet industry best practices, gathering stakeholder insights and defining plans to expand SDI globally.

To make it easier to connect, in 2022, we launched Supplier Connect, a vendor registration portal which now has more than 2,200 diverse suppliers registered, 728 of which are certified by one of the five major U.S. supplier diversity agencies. We also offer Amazon Relay, a registration portal for freight carriers.

We recognize the importance of working with diverse businesses and are intentional about the certifications we accept. To ensure the integrity of our process, Amazon validates certification documents for every diverse business included in our Tier 1 diversity spend. We annually confirm certification status for each of our diverse suppliers.

Looking Forward

Amazon's supplier diversity program is guided by our ambition to extend procurement opportunities to diverse businesses, with the goal of driving supply chain innovation and offering customers a broader range of products and services. In 2023, we are expanding our program globally, aiming to generate wider economic impact through our suppliers.

Supporting Global Communities

We believe success and scale bring broad responsibility. That's why we strive to leverage our scale for good, using our capacity for quick innovation to strengthen the global communities in which our employees live and work.

Goals

Goal
Deliver $2 billion to preserve and create more than 20,000 affordable homes in three communities in which we have a high concentration of employees: Washington state's Puget Sound region; Washington, D.C., and Arlington, Virginia; and Nashville, Tennessee

Progress
2022

Goal
$2.0 billion

$1.6B+
committed

Goal
Distribute $40 million to support organizations globally promoting health equity by 2024

Progress
2022

Goal
$40 million

$14M
distributed

Goal
Help 29 million people globally grow their technical skills with free cloud computing training by 2025

Progress
2022

Goal
29 million people

13M
people since the program was founded in 2020

Actions

50+
Countries participated in Amazon's first Global Month of Volunteering

828K+
Students from primarily low-income families in India reached through the Amazon Future Engineer program across 5,000 government schools

33.6K
Microloans granted by the Whole Planet Foundation and donors

6K+
Trees planted through the Forestami project, contributing to Parco Italia's long-term goal of planting over 22 million trees

Our Approach

Amazon's culture is built around finding effective solutions to difficult problems; this enables us to take a more hands-on approach to community support wherever we operate. We are tackling critical issues to create lasting, positive impact, working with local organizations on tailored programs that address areas like:

- Creating and preserving affordable housing
- Improving access to food and basic needs
- Community education and skills training
- Disaster relief and response
- Product donations

We also aim to create employment opportunities where we operate to help drive economic growth and empowerment.

Learn more about our community investments in the U.S. and how we are working to create community impact globally.

Food donated by Amazon gets distributed from the Getafe, Spain logistics center to local food banks.

Our Progress

Creating and Preserving Affordable Housing

Through the Amazon Housing Equity Fund, we've pledged $2 billion to preserve and create more than 20,000 affordable homes in three communities in which we have a high concentration of employees: Washington state's Puget Sound region; Washington, D.C., and Arlington, Virginia; and Nashville, Tennessee. We partner with agencies to make housing available where it's needed most, including near transit and in historically diverse, underserved communities. As of the end of 2022, we had committed over $1.6 billion to build homes that will support approximately 18,000 people.

In 2022 alone, we made significant progress, with several new commitments, including:

- $445.6 million for 3,868 homes in Arlington, Washington, D.C., and Maryland
- $249.2 million for 3,078 homes in the Puget Sound region
- $97.4 million for 1,107 homes in Nashville

Addressing the housing crisis requires collective effort, and we are focusing on creating equal access to development opportunities. Through the Amazon Housing Equity Fund, we launched a $21 million, two-year accelerator in 2021 to help minority-led real estate developers overcome entry barriers to the affordable housing development industry.

Through the accelerator program, participants receive in-person instruction on real estate fundamentals, affordable housing trends, public policy, and financing practices. They also gain access to expert business advisors, professional networking opportunities, and capital for pre-development expenses. In 2022, 17 minority-led developers were supported; collectively, minority-led developers were responsible for 40% of the 2022 projects we committed to through the Housing Equity Fund.

Improving Access to Food and Health Care

Everyone should have access to the food and resources they need to live. However, today, 34 million people in the U.S. struggle with food insecurity.[39] We are focusing on scalable solutions that help us meet the basic needs of families in underserved communities.

Increasing Food Security

We strive to bring healthy, affordable food to customers and, in 2019, became one of the first retailers to accept Supplemental Nutrition Assistance Program (SNAP) Electronic Benefit Transfer (EBT) payments for online transactions. SNAP is a federal program that provides food-purchasing assistance to low- and no-income people. Through it, customers can purchase fresh, healthy foods from Amazon, Amazon Fresh, and Whole Foods Market, both online and in-store.

Amazon's online delivery coverage includes 49 states plus the District of Columbia. In November 2022, we launched a pilot in Washington state that enables SNAP EBT customers to earn and redeem incentives for purchasing more fresh fruits and vegetables through Amazon Fresh online.

We also leverage our network of Amazon Flex delivery partners to provide free grocery, meal, and supply deliveries from food banks and other local organizations to those who need them with our Community Delivery program. In 2022, we delivered 10.8 million meals through the program. Amazon Fresh also donated over $500,000 to organizations addressing food insecurity in our communities.

Learn more about how we support communities through food donations.

Health Equity

In 2021, Amazon Web Services (AWS) launched a three-year program to enhance health outcomes for underserved and historically marginalized communities. By 2024, the AWS Health Equity Initiative plans to distribute $40 million in cloud computing credits and technical expertise to organizations promoting equitable health care access, addressing social determinants of health, and leveraging data to develop inclusive care systems.

In 2022, AWS awarded $14 million to approximately 90 organizations globally. We also expanded the program to cover innovations in diagnostics and screening, a frequently overlooked and underfunded area of health care.

Did You Know?

From 2014 through 2022, Amazon attorneys and legal professionals have volunteered more than 40,000 hours to assist those in need.
Learn more about our Pro Bono program.

Community Education and Skills Training

We have invested in various programs for children, students, and adults alike to develop valuable science, technology, engineering, and math (STEM) skills. For example, in 2021, we partnered with China's YouChange Foundation to launch Coding for the Future; in 2022, 58 teachers across four provinces received training through the program to help 3,500 children learn the basics of coding.

Amazon Future Engineer

We provide childhood-to-career computer science (CS) education through Amazon Future Engineer, focusing on students from underserved and historically marginalized communities. Throughout 2022, 700 schools participated in Amazon Future Engineer education, while over 5,500 teachers received virtual resources and training. Notably, we donated $1 million through the program to CodeVA to expand access to CS education in Virginia and to help schools implement state-mandated CS lessons.

In Oregon, we partnered with the Confederated Tribes of the Umatilla Indian Reservation to create a lab that will deliver learning in STEM and the arts. We also committed $2.25 million to the Indigitize Computer Science program so Indigenous communities in the U.S. can access culturally responsive CS curriculums. It is currently available in New Mexico, with plans for U.S. expansion to reach 10,000 Indigenous students by 2025.

In India, Amazon Future Engineer completed its first year of implementation, reaching nearly 829,000 students—primarily from low-income families—across 5,000 government schools. Significantly, we engaged with India's Ministry of Tribal Affairs to introduce CS into residential schools for tribal students from some of the most marginalized communities. Class Chat sessions in eight languages helped Amazon volunteers engage 47,500 students from 382 schools on tech career opportunities.

AWS Education and Skills Training Resources

In 2022, AWS InCommunities launched 10 Think Big Spaces—bringing the total to more than 60 globally—so more students can explore STEM and the arts outside the classroom. They also piloted a new program, AWS CloudRoom, in 65 schools globally, reaching 4,800 students. Additionally, AWS InCommunities supported 10 Girls' Tech Day events globally, reaching over 7,300 girls and young women.

Did You Know?

Amazon is making cybersecurity awareness training available—for free—to other companies and individuals.

AWS re/Start and AWS Skill Builder are part of our broader commitment to provide 29 million people around the world with access to free cloud computing skills training by 2025. Since 2020, AWS has helped over 13 million people gain access to cloud computing skills through our free workforce programs. In 2022, we expanded AWS re/Start, our free multiweek, cohort-based program to help unemployed and underemployed individuals pivot into cloud computing-related careers. It is now available in over 180 cities across more than 60 countries. We are also adding a track, AWS re/Start Associate, to help unemployed and underemployed individuals with noncloud IT experience pursue mid-level cloud roles.

We offer 600 free courses through AWS Skill Builder, hundreds of hours of self-paced training and interactive labs through AWS Educate, and many other training options. We also recently opened the AWS Skills Center in Arlington, Virginia, an in-person learning space to deliver free cloud computing courses to the community.

Learn more about AWS skills training programs launched in 2022.

Disaster Relief and Response

We leverage our technology and logistics to provide fast, effective aid following natural disasters. In 2021, Disaster Relief by Amazon developed a global disaster relief hub to facilitate this. The special fulfillment center in Atlanta stores 1.2 million items, including shelter and repair materials, hygiene supplies, medical equipment, and basic household items.

In September 2022, when Hurricane Ian hit Florida, we quickly activated the hub to prepare urgent relief supplies. We sent over 900,000 bottles of water to Florida and other impacted states, strategically positioning delivery trucks to make sure we got supplies to those who needed them, when they needed them.

Supporting Those Impacted by the War in Ukraine

Since the beginning of the war in Ukraine, we have worked to deliver timely and appropriate relief. Just 10 days after Russia invaded, we built aid hubs in Slovakia and Poland, and we have donated aid items such as medical supplies and critical relief products since the start of the conflict. We also collaborated with the Ukrainian government to keep critical services operational.

By the end of 2022, Amazon had committed more than $75 million in support to help address both immediate and long-term needs. This was realized, in part, through Project Sunflower—AWS' coordinated effort to maximize humanitarian relief and ensure government and business continuity by protecting critical data and digital infrastructure. AWS directly supported government authorities, universities, and companies with digital infrastructure protection. This included helping migrate over 10 petabytes of essential data to secure vital digital information. In July 2022, AWS was awarded the Ukraine Peace Prize in recognition of our rapid and ongoing support.

Learn more about our efforts to support Ukraine.

Alongside Atlanta, we now have a global network of disaster relief hubs in the U.S., Europe, and Australia, which, collectively, have donated 22 million items as of the end of 2022. When an earthquake hit Luding County in Sichuan, China, we donated 2,800 kits with clothes, blankets, disinfectant wipes, masks, and flashlights. Additionally, in India, we responded to 55 requests for disaster relief support, working with 25 nonprofits to distribute relief kits to support 27,100 households.

To further support global disaster responses, our AWS Disaster Preparedness and Response team delivers cloud technology to relief organizations. These advanced computing capabilities aid recovery by accelerating damage assessments and restoring internet connectivity. Following Hurricane Ian in 2022, the team deployed volunteers and AWS technology alongside relief organization Help.NGO to help establish internet connectivity for community centers. During the year, the team also conducted multiple field testing exercises to refine cloud-based tools to help first responders and humanitarian agencies more effectively respond to emergencies.

Employee Volunteer Efforts

In 2022, we launched our Global Month of Volunteering and engaged employees to make a positive impact in their communities. Volunteer activities included recovering surplus food to distribute to nonprofits, cleaning parks and schools in underserved neighborhoods, and prepping backpacks with school supplies. More than 38,000 employees from over 50 countries participated in this inaugural campaign.

Product Donations

Just because an item is returned to one of our facilities doesn't mean it's at the end of its useful life. Together with Good360, we are donating goods to people across the U.S. and Canada.

Amazon facilitated the donation of over 15 million products to charities in the United Kingdom (UK) in 2022, including Age UK, Barnardo's, British Heart Foundation, and Cancer Research UK. We also announced the expansion of the Big House project in Scotland, created in partnership with local charities, businesses, and former Prime Minister Gordon Brown. Formally launched in 2022, the project distributed 400,000 essential items in partnership with 600 partner organizations to thousands of Scottish families in its first year.

Across Europe more broadly, in May 2022, we partnered with L'Oréal to donate 110,000 hygiene products and 160,000 diapers to German nonprofit Tafel Berlin.

Whole Foods Market

In addition to food donations and various community giving initiatives, Whole Foods Market delivers impact through three foundations:

Whole Planet Foundation

Whole Planet Foundation looks to empower the world's poorest people with microcredit loans to create or expand home-based businesses. In 2022, the foundation and donors granted over $7.85 million to microfinance partners across 37 countries to create 33,555 microloans for the world's most vulnerable entrepreneurs.

Whole Kids Foundation

Whole Kids Foundation helps children eat better, delivering education grants, supporting schools to transform their food options, and inspiring families to improve children's nutrition and wellness. In 2022, it funded:

506
Edible educational gardens grants to create gardens that connect kids with the food-growing process

142
Grants for salad bars in U.S. schools

129
Grants that help schools and nonprofits access educational beehives and programming so students can learn about the vital role pollinators play in our food system

Whole Cities Foundation

Whole Cities Foundation works to improve community health through partnerships, education, and broader access to nutritious food. In 2022, the foundation supported 57 Community First grants designed to support nonprofits focused on long-term fresh, healthy food access and nutrition education that are engaged with Whole Foods Market team members. Whole Cities Foundation also funded 11 Newark Fresh, Healthy Food Access grants for community-led nonprofits working to improve local food systems and healthy food access in Newark, New Jersey.

Local Producer Loan Program

Whole Foods Market also runs a Local Producer Loan Program to support small, local, and independent food producers across the U.S. and Canada with business expansion loans. Since 2006, the program has delivered more than 375 loans—totaling nearly $28 million in capital—to support growth potential. In 2022 alone, Whole Foods Market funded six loans totaling $1.8 million.

Xocolatl Bakery is one of many local companies in Eastern Oregon that benefited from AWS' investment in the region.

Funding Nature in Our Communities

In 2019, Amazon created the Right Now Climate Fund, a fund for solutions to restore and conserve natural spaces globally. Through it, we are financing community-focused projects to mitigate the impacts of climate change, enhance biodiversity, and add green space to urban areas. In 2022, Amazon continued to fund nature projects in the communities in which we operate, with projects across the UK, Italy, and France.

Learn more about our large-scale, nature-based carbon-neutralization initiatives.

Enhancing UK Biodiversity

In October 2022, Amazon committed £2.8 million to two UK programs: The Woodland Trust's Emergency Tree Fund and the Rewild London Fund led by the Mayor of London. Both initiatives aim to enhance biodiversity and improve access to nature through tree-planting, while creating jobs and volunteering opportunities. Together, the programs will plant over 450,000 trees and support 22 critical London rewilding[40] projects.

Restoring Ecosystems in France

In France, we pledged €3 million over three years to CDC Biodiversité's Fonds Nature 2050 program to preserve and restore biodiversity, while mitigating climate change impacts and improving ecosystem resilience. Amazon will fund projects that restore approximately 600,000 square meters of habitat.

Restoring Coastal Habitats in the U.S.

Amazon has engaged with environmental partners to foster marine biodiversity initiatives for the benefit of coastal communities in the U.S. in which we operate. Since 2021, we have supported three initiatives, including funding the Puget Sound Restoration Fund to restore Olympia oyster habitats near Port of Seattle, launching a giant kelp reforestation pilot with the Bay Foundation near the Port of Los Angeles, and funding the restoration of a living shoreline in partnership with the Port of Virginia, set to begin construction in 2023.

Planting Trees in Italy

In Milan, Italy, as part of our wider €2 million pledge to support the Parco Italia reforestation program, in 2022 we helped plant over 6,000 trees through the Forestami project, contributing to Parco Italia's long-term goal of planting over 22 million trees.

Looking Forward

As we move forward, we will continue supporting communities in which we operate, focusing on the areas where we can have the most impact—housing equity, food and basic needs, health equity, education, disaster relief, and product donations. We will also continue delivering support in the areas of nutrition and environmental protection, with strategic investments through our Whole Foods Market foundations and Right Now Climate Fund.

Our people are committed to giving back to their communities, supporting relevant causes to help address local needs.

Appendix

Impact Reporting Topic Assessment

Amazon's business spans many industries, including but not limited to e-commerce, cloud computing, consumer goods, food and beverage, and logistics. This broad scope means we identify environmental, social, and governance topics and focus our efforts by assessing our business holistically. In 2022, Amazon conducted a comprehensive analysis to determine the sustainability topics that are relevant to our reporting.

To guide our analysis, we leveraged Datamaran, an ESG business intelligence platform, referencing data-driven insights from leading reporting frameworks, including the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD), and the Global Reporting Initiative (GRI). The platform also analyzed existing and upcoming regulations, and media and company reports to assess external risks and opportunities. We also consulted with key stakeholders, including internal decision-makers, employees, partner organizations, nongovernmental organizations, and academics, to ensure we captured their input and broad range of perspectives.

As a result, we have determined several topics in scope for our reporting, listed below in alphabetical order. We view these topics as interconnected and know our progress in one area can often help solve for challenges in another.

- Business Ethics
- Carbon
- Community Impact
- Customer Practices
- Data Privacy and Cybersecurity
- Diversity, Equity, and Inclusion
- Governance
- Health and Safety
- Human Capital
- Human Rights
- Packaging
- Public Policy and Lobbying
- Renewable Energy
- Responsible Supply Chain and Sourcing
- Waste and Circularity
- Water

Endnotes

Sustainability

1 As we examined our work toward The Climate Pledge, we realized that it no longer made sense to have a separate and more narrow Shipment Zero goal that applied to only one part of our business, so we've decided to eliminate it. We set Shipment Zero as a goal before we announced our commitment to The Climate Pledge, which is a more comprehensive effort to drive innovation and decarbonization efforts across our entire business. We remain focused on The Climate Pledge and our goal to reach net-zero carbon across our operations by 2040—this includes working toward powering our operations with 100% renewable energy, transforming and decarbonizing our transportation network with electric vehicles and alternative fuels, using more sustainable building materials, and reducing packaging waste, among other areas.

2 Green hydrogen is produced through a zero-carbon pathway using water and renewable electricity.

3 PitchBook.

4 In the transportation context, carbon intensity (CI) is a sustainability metric that represents carbon emissions for each kilometer (km) a unit travels. CI is defined as kilograms CO_2e/unit-km.

5 A cross dock is a warehouse operation that involves moving goods between different trucks to consolidate loads without intermediate storage.

6 RNG is created by anaerobically (without oxygen) decomposing organic waste materials.

7 Green steel is defined as the manufacturing of steel manufactured without the use of fossil fuels.

8 Sustainable Aviation Buyers Alliance.

9 U.S. Environmental Protection Agency.

10 Embodied carbon is carbon emitted during building construction.

11 Carbon credits are permits that are purchased to offset the emissions of a certain amount of CO_2 or other GHGs.

12 Cloud-based offerings include compute, storage, databases, networking and content delivery, analytics, machine learning, and security, identity, and compliance.

13 451 Research.

14 IPCC.

15 IPCC.

16 As detailed in our Renewable Energy Methodology, to calculate the percentage of renewable energy powering Amazon's operations, we evaluate both the amount of renewable energy from Amazon's projects and the renewable energy in the grid. This total renewable energy is then compared to Amazon's total energy use.

17 This metric is inclusive of shipments from the Amazon fulfillment network fulfilled through Amazon-owned and -operated fulfillment centers across the U.S., Canada, Japan, India, Europe, and certain other geographies. Amazon Grocery Logistics shipments, such as Amazon Fresh and Whole Foods Market, are also included. We calculate the weight of single-use plastic by multiplying total delivery shipments by the weight of the particular plastic packaging used. In the cases where outbound shipment count is not available, we look at materials purchased, such as dunnage and prep, to estimate the weight of single-use plastic. This metric excludes third-party packaging.

18 BOTTLE: Bio-Optimized Technologies to keep Thermoplastics out of Landfills and the Environment.

19 UN Environment Programme.

20 Goal scope covers food that is considered inventory. It is measured with a food waste intensity metric that calculates the amount of food waste generated as a percentage of total food handled within Amazon.

21 Amazon Warehouse is an online marketplace where customers can purchase quality used, pre-owned, or open-box products with all the benefits of Amazon fulfillment, customer service, and returns rights.

22 UN-Water.

23 The WNI defines "water neutral" as the amount of water conserved being equal to the quantity of water consumed, with a score of 1.

24 This scope is limited to operational processes and Amazon-owned and -leased sites. Scope includes fulfillment centers, sort centers, Global Specialty Fulfillment, and Amazon Logistics, and excludes AWS buildings.

25 WNI=1.05.

26 The concept of salience uses the lens of risk to people, not the business, as the starting point, while recognizing that where risks to people's human rights are greatest, there is strong convergence with risk to the business. United Nations Guiding Principles Reporting Framework.

27 Please refer to the Twitch HRIA for methodology describing how we prioritized risks.

28 Supplier assessments are conducted for businesses manufacturing Amazon-branded products or products under Amazon's patent or trademark.

29 To understand what this goal should encompass, we model and measure the energy consumed by our devices in different types of use, then project their total average global annual electricity consumption.

30 Includes using cotton from recycled sources, from farms certified as producing organic cotton, or through Better Cotton, a global nonprofit that aims to help cotton communities survive and thrive while protecting and restoring the environment.

31 We use the nonprofit Canopy's tools and reports to help avoid fibers sourced from endangered forests, endangered species' habitats, or other controversial sources.

People

32 In the U.S., an LTI is work-related and results in one or more days away from work, excluding the date of the injury and including the days the employee was scheduled to work, weekend days, holidays, vacation days, or other days off. Outside the U.S., lost time varies by country, and we follow local laws and record-keeping requirements.

33 While we measure safety across Amazon, performance rates reported here are based on data for our global operations—fulfillment centers, sort centers, delivery stations, and Amazon-branded physical stores. This is where approximately two-thirds of our employees work and where we see most incidents. For the purposes of this report, we removed performance data from corporate offices, call centers, and AWS.

34 L8+ includes director-level positions or above.

35 Corporate employees include L4–L7.

36 Certified means suppliers to hold a valid certificate from one of five major U.S. supplier diversity agencies: The National Minority Supplier Development Council or regional affiliate; Women's Business Enterprise National Council or regional affiliate; National LGBT Chamber of Commerce; National Veteran Business Development Council; and Disability:IN. A diverse supplier is a business owned and operated at least 51% by an individual or group that is part of a traditionally underrepresented or underserved group.

37 Tier 2 is the term we use to measure the economic impact generated for diverse suppliers throughout our supply chain. Tier 2 is the spend Amazon's suppliers reported purchasing from diverse businesses.

38 Diverse-owned businesses are those whose majority owners (51% or more) are ethnic minorities, women, individuals living with disabilities, veterans, or those who identify as LGBTQIA+.

39 Feeding America.

40 Transforming degraded land back into its natural state through reintroducing plants and animals.

Assurance Statement

Amazon assures carbon and renewable energy data.
Please see our 2022 assurance statements at the links below:

Amazon Renewable Energy

Devices Renewable Energy

Amazon Scope 1 and 2 Assurance

Amazon Scope 3 Assurance

Disclaimer and Forward-Looking Statements

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