



THE BOEING COMPANY  
2021 SUSTAINABILITY REPORT

# SUSTAINABLE AEROSPACE TOGETHER

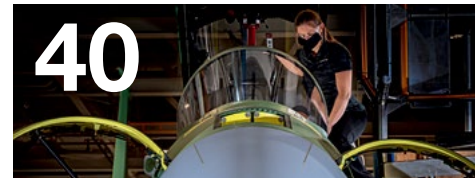


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Cover Photo: Yakira and Yeshaya, children of Boeing Global Engagement Manager Tamika Lang, help out at a volunteer event at a community garden in Long Beach, California.

Some photos in this report were taken before the COVID-19 pandemic.

## Message from Dave Calhoun



Dave Calhoun, President and CEO

The essence of sustainability is about meeting the needs of the present without compromising the ability of future generations to meet their own. Throughout our long history of innovation, Boeing has looked for ways to improve sustainability. Today, the scope of sustainability requires broader consideration across the environmental, social and economic landscape and identifying ways to further enable efficiency, innovation and human connection. Simply, it's about doing what's right for our customers, our people and our planet while continuing to chart a course that safeguards our environment, does not compromise quality of life, and ensures growth and prosperity for all stakeholders.

At Boeing, everything we do ties back to our values and purpose, which is “to protect, connect and explore the world and beyond.” This starts with our commitment to protect. Why? Because it is imperative our employees, customers, the flying public and military service members understand that absolutely nothing is more important to us than doing everything possible to keep them safe and protect them from harm. We carry a big and important responsibility on our shoulders, and we never forget that for a moment. We must also hold ourselves accountable for how we are taking meaningful actions to help protect our world for future generations. This is the lens through which we view our Environmental, Social and Governance (ESG) efforts.

While focusing on sustainability is valuable to every company, it is particularly vital to the global aerospace industry. Boeing's inaugural Sustainability report shares our journey through stories and data that convey how well we are living up to this broader obligation, and uncovers where we can do better in the coming years. You'll notice we've developed a few new goals on some of the most critical topics facing our company and our world. The report focuses on our people, products and services, operations and communities.

**People:** As a leader in the aerospace industry, we have multiple responsibilities with respect to protecting people. First and foremost, our team is focused on protecting everyone who has any interaction with our products. In 2019 — a year before the pandemic — there were approximately 4.5 billion air travel occasions for passengers worldwide, and many of these were on a Boeing aircraft. In parallel, the U.S. military and our allied nations depend on Boeing products to let them safely complete their missions. Each and every flight that utilizes our aircraft represents a social responsibility of the highest order.

We are equally passionate about protecting our 140,000 teammates, their families, and the communities where we operate or influence

social interactions. In the last year we have put a bright spotlight on confronting racism and addressing racial equity and inclusion at Boeing. Our pledge to eradicating any racism and discrimination across our ecosystem is irrevocable. This leadership starts at the top, starting with multiple moves to create a more diverse senior executive team to shape our strategy, operations and culture.

**Products and Services:** For over a century, we have had the privilege to bring air travel to the world and help pioneer space exploration. Given the intrinsic nature of air and space travel, every product we build and service we provide inevitably affects Earth's atmosphere. However, our 50,000 engineers are hard at work reinventing the future of aerospace to ensure that we significantly reduce our environmental impact during every stage of a product's life cycle.

One significant step in this direction is our commitment to making certain our commercial airplanes will be certified to safely fly on 100% sustainable aviation fuels by 2030. Equally impactful is helping our customers around the world find new ways to accelerate the replacement of older, less-fuel-efficient aircraft.

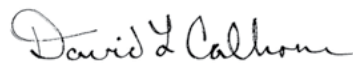
**Operations:** We announced last year that we achieved net-zero carbon emissions at our factories and worksites. We will always continue to seek more ways to make our work more energy efficient. Each day, we collaborate with a global network of approximately 12,000 suppliers to help design, build and service our products and apply a core set of principles throughout our supply chain. We pay careful attention to vetting, selecting and supporting our suppliers every step of the way and are equally committed to collaborating with suppliers who share our passion for creating a more sustainable environment. We look for every opportunity to help them uncover new ideas and approaches to lessen their own environmental footprint.

**Communities:** Through our investment in education programs, veterans care, cultural organizations and support efforts, we are supporting the next generation of STEM leaders; contributing to local charities; and building partnerships that expand equity, such as our work with Allen University to establish the Boeing Institute on Civility.

At the beginning of the report, we dedicate a section to our approach and governance. Governance at Boeing starts with the composition of our Board of Directors, a group that brings a healthy diversity of expertise and lived experiences to every major decision facing our company. We have continued to evolve our board composition in recent years

to include a greater diversity of perspectives in every consequential conversation. Our Board — in close coordination with our senior executive team — ensures that we hold ourselves to the highest standards in our work and business practices, ethical conduct and information protection. Included within this mandate are all the policies we develop and the training we provide to enable our teams to operate with utmost integrity. We will always have zero tolerance for bribery, corruption, illegal activities, or any other decision or action that violates our Code of Conduct. The Board actively oversees our corporate sustainability activities through the Governance & Public Policy Committee, working closely with leadership to ensure that we meet our commitments to our stakeholders.

Our Sustainability report highlights our initiatives and investments to help protect, connect and explore our world and beyond. I'm incredibly proud of how our teams are constantly discovering new ways to build a better Boeing, all in service of building a better world. We look forward to the journey ahead and will work tirelessly with all of our stakeholders to create the future of sustainable aerospace together.



**David L. Calhoun**  
President and Chief Executive Officer

## Our Values

### HOW WE OPERATE:

Start with engineering excellence

Be accountable — from beginning to end

Apply Lean principles

Eliminate traveled work

Reward predictability and stability — everywhere in our business

### HOW WE ACT:

Lead on safety, quality, integrity and sustainability

Foster a Just Culture grounded in humility, inclusion and transparency

Import best leadership practices

Earn stakeholder trust and preference

Respect one another and advance a global, diverse team

Innovate and operate to make the world better

# Boeing Responds to COVID-19

Boeing has taken proactive steps to protect our employees, aid our communities and support our customers through the COVID-19 pandemic. We will continue to adapt and evolve to address the impact of COVID-19.

## EMPLOYEES



- Assessed employee health and COVID-19 impacts continuously and in consultation with health officials, temporarily suspending site operations as needed
- Directed all employees who can effectively do their jobs from home to telecommute
- Directed virtual meetings whenever possible and physical distancing and mask wearing when face-to-face meetings are essential
- Increased cleaning of high-touch areas, deep cleaning of impacted sites and maintaining rigorous criteria for return to work

## COMMUNITIES



- Coordinated 11 airlift transport missions of COVID-19 supplies
- Delivered 4.5 million units of personal protective equipment (PPE) on Boeing airplanes, including the Dreamlifter, to front-line workers
- Utilized 3D-printing capabilities to manufacture 40,000 face shields for front-line workers
- Provided our facility space to help support local vaccine distribution at sites including Everett and Auburn, Washington, and North Charleston, South Carolina
- Committed \$10 million in emergency assistance to support India's response to the surge in COVID-19 cases in 2021, funding organizations that provide relief, including medical supplies and emergency health care for communities and families battling COVID-19

Boeing pilots completed 11 airlift missions that safely delivered 4.5 million units of PPE aboard Dreamlifter cargo freighters to health care professionals. See other Boeing pandemic humanitarian airlift missions featured on [Page 55](#).

## CUSTOMERS



- Launched the Confident Travel Initiative to provide airline passengers and crews a safe, healthy and efficient travel experience
- Developed innovative technologies and methods for cabin cleanliness, including antimicrobial surface treatments, ultraviolet light and thermal disinfection
- Delivered mission-ready products to our defense and space customers with an unwavering focus on safety, quality and integrity
- Met the evolving services needs of commercial and government customers, including remote inspections and maintenance, virtual training and digital solutions to increase operational efficiency



Additive Manufacturing teams across the U.S. 3D-printed and assembled 40,000 face shields during the coronavirus pandemic. Pictured here in Mesa, Arizona, is Jared Tompkinson, who said, "Working on something so directly meaningful to society in general brings a unique kind of satisfaction."





### SPOTLIGHT: Confident Travel Initiative

#### Protecting the Health and Safety of Passengers and Crew

Boeing's Confident Travel Initiative is leading the global effort to protect airplane passengers and crew during the COVID-19 pandemic.

The company is partnering with industry, applying best practices and mobilizing engineering resources to develop new technologies and solutions that minimize virus transmission in airports and on airplanes.

This collaborative approach to strengthening safety supports the short- and long-term recovery of the aviation industry.

#### KEY ACHIEVEMENTS

- Approved new airplane cleaning and disinfection processes
- Developed a portable ultraviolet wand to sanitize airplane interiors
- Tested and validated thermal disinfection to kill viruses on hard-to-clean flight deck equipment
- Completed comprehensive airflow analysis confirming that cabin design and airflow systems minimize the spread of airborne particles
- Conducted data-driven analysis simulations and modeling to further minimize virus transmission risks throughout the air travel journey

Boeing is now working with governments and industry associations to enhance, stabilize and standardize international travel requirements as air travel resumes and restrictions ease around the globe.

### A Multi-layered Approach to Protect the Air Travel Journey

From left: Boeing engineers Kevin Callahan, Teresa King and Jamie Childress with the UV wand at Boeing's Concept Center in Everett, Washington. They led a team that turned a concept into a device that could change the way airplanes are sanitized.



DATA-DRIVEN OPTIMIZATION

# Partnering for Sustainable Aerospace



Chief Sustainability Officer Chris Raymond discusses Boeing's commitment to partner across the industry to redefine sustainable aerospace by 2050.

## In September 2020 Boeing formed a Sustainability organization and named you as their Chief Sustainability Officer. Why was this the right time?

For more than 100 years, Boeing has been committed to protecting, connecting and exploring our world and beyond, and we continue to do so today, safely and sustainably. However, in the midst of a pandemic, we wanted to be even more intentional about our stakeholder focused efforts and created a Global Enterprise Sustainability organization. Sustainability is rooted in our company values and encompasses our focus on environmental stewardship, social progress and inclusion, and values-based transparent governance. Within this report, we share our journey, our industry point of view and data around key stakeholder topics for our business. You'll find the details of how we are actively advancing sustainability on all of our priorities through our people, products and services, operations and communities.

Boeing has been exploring and developing concepts for advanced aircraft that can meet specific energy-efficiency, environmental and operational goals in 2030 and beyond.



Our industry and our company are facing into climate change driven risks, opportunities and the need to decarbonize aerospace for sustained long-term growth. Safe and sustainable aerospace is nonnegotiable to our commercial and defense customers, communities, and current and future employees. Our people around the globe and partnerships in our local communities are foundational to our success.

## How does Boeing plan to decarbonize aerospace for future generations?

Our purpose is to protect, connect and explore our world and beyond safely and sustainably, so we're partnering across the industry to reimagine and ultimately decarbonize aerospace in the second half of this century. By 2050, we see a world where air travel will safely carry 10 billion passengers a year; support 180 million jobs; support science, technology, engineering

and math education; and generate nearly \$9 trillion in economic activity, all while minimizing the impact on our planet.

At the same time, governments around the globe are committing to bold climate change ambitions and are looking to our industry to partner with them on a more sustainable aerospace future both in the commercial and defense sectors. This future requires a portfolio of solutions and partnerships that allows our industry sector to decarbonize while ensuring the human connectivity, societal and economic benefits that come from aerospace are available to people everywhere.

## What is included in Boeing's portfolio of solutions?

Safe, sustainable aerospace requires different solutions tailored to the needs, capabilities and constraints of different regions and markets. We have made solid progress in areas where we see the biggest potential, including fleet renewal, network operational efficiencies, renewable energy transition, and advanced technology in power systems and platforms.

We recognize that elements of this transition will take time as well as further advances in technology and policy collaborations with governments around the world. We are excited about the potential for further cooperation across the industry value chain and new partnerships with global stakeholders so we can collectively deliver on our commitment to climate action and sustainable aerospace.

The journey to net-zero will also require the use of verified and sustainable carbon offsets in the midterm as we collectively work to scale up sustainable aviation fuels (SAF) and deploy new technologies. The global, industry-aligned (IATA, ICAO) offsetting program, CORSIA, has been implemented as a bridge to complement the work we're doing to decarbonize aviation.

### Why is fleet renewal important?

New airplanes provide significant efficiency gains, with each generation reducing fuel use and emissions 15% to 25%. Boeing has invested more than \$60 billion over the last 10 years in key strategic areas, including innovative technologies such as carbon composite materials, advanced high-bypass-ratio engine designs and other aerodynamic

improvements such as natural laminar flow that reduces drag to improve environmental efficiency — integrated across the life cycle in a model-based engineering environment. But it's bigger than a single company's investment. Airlines have invested more than \$1 trillion to purchase these new airplanes, in many cases to replace older, less-efficient models. Many airlines have accelerated retiring older airplanes during the pandemic, and we expect this trend will continue.

### What is Boeing doing to advance operational efficiencies?

The aviation industry continues to collaborate on how to operate and fly more efficiently, which collectively can reduce emissions by approximately 10%. Boeing ensures our aircraft have the latest equipment to support

advanced procedures, and we also work with airlines, government customers, air navigation service providers and airports to enable airspace efficiency improvements. A few examples include continuous descent approaches, navigation equipment upgrades, fuel optimization services, real-time data and decision support tools, and more direct routings.

### How will Boeing achieve its commitment to have all of its commercial airplanes 100% capable and certified to fly on sustainable aviation fuels by 2030?

It's an ambitious target but one that is necessary to advance the long-term sustainability of commercial aviation. We're committed to working with regulators, engine partners and other key stakeholders to ensure our airplanes and eventually our industry can fly entirely on sustainable jet fuels.

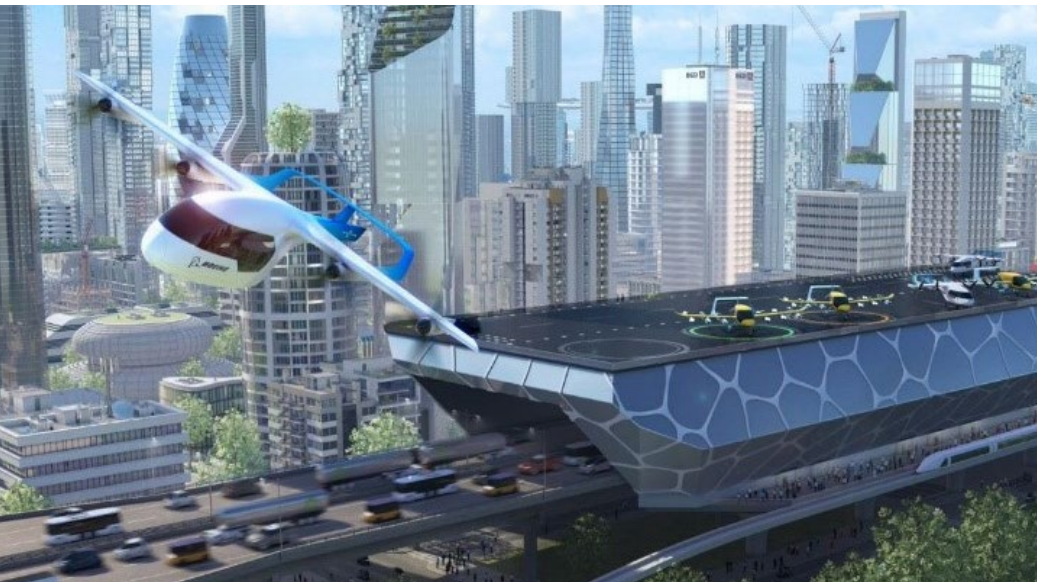
Boeing has been a pioneer in making sustainable aviation fuels a reality. The company worked with airlines, engine manufacturers and others to conduct biofuel test flights in 2008 and gain approval for commercial use in 2011. In 2018, we carried out the world's first commercial

airplane flight using 100% sustainable fuels as part of our ecoDemonstrator program. On the defense side, we've partnered with the U.S. Navy to conduct SAF flight tests on an F/A-18 Super Hornet. We also collaborated with the U.S. Air Force on an in-depth fuel study as part of their efforts to certify the C-17 to use SAF. Going forward, we aspire to partner and help solve the obstacles to scaling the SAF supply as well.

### Why is Boeing focused on SAF instead of other alternative energy solutions?

We are focused on and investing in both, but SAF is in regular use today and offers the most immediate and largest potential to reduce carbon emissions over the next 20 to 30 years across all aviation segments. Battery-electric energy storage and green hydrogen have potential but will require new design studies, safe certification approaches, new technology developments, platform developments, and new systemwide ground and network infrastructure to scale. Also, the large majority of aviation sector emissions are associated with long-range aircraft and flights, which are at a physical scale that is not yet supported by these alternative energy approaches. For these reasons, we see them as longer-term solutions. Given the near-term need for emissions reduction and with the primary sources of aviation emissions stemming from longer-haul flights, our near-term emphasis is on SAF as the most direct way to make substantial reductions in net carbon emissions from aviation today.

Electric propulsion enables small, zero-emissions aircraft that have the potential to bring sustainable flight closer to home in the future.





## Boeing Takes Action to Decarbonize Aerospace

Boeing remains committed to pioneering sustainable aerospace for current and future generations. This involves a long history of innovative solutions with our people and partnerships foundational to all we do. While the activities on the map are not exhaustive, they give an indication of the actions we've taken and the partnerships we've formed around the globe to decarbonize aerospace.



- People and Presence
- Products and Services
- Efficient Operations
- Communities and Industry

### People and Presence

Locations with Boeing teammates and key partners focused on advancing sustainable aerospace efforts.

- Abu Dhabi, UAE
- Amsterdam, Netherlands
- Beijing, China
- Brasilia, Brazil
- Brussels, Belgium
- Canberra, Australia
- London, U.K.
- Pulau Ujong, Singapore
- Washington D.C., U.S.

### Communities and Industry

- Aerospace Industries Association (AIA)
- Aerospace Defence, Security and Space
- Air Transport Action Group (ATAG) (Geneva, Switzerland)
- Aircraft Fleet Recycling Association (AFRA)
- Airlines for America (A4A)
- Airlines for Europe

- Boeing Aerospace Technology Institute Accelerator project
- Commercial Aviation Alternative Fuels Initiative (CAAFI)
- International Aerospace Environmental Group (IAEG)
- International Air Transport Association (IATA)

- International Civil Aviation Organization (ICAO)
- MIT Climate & Sustainability Consortium
- Nordic Initiative for Sustainable Aviation
- Roundtable on Sustainable Biomaterials (Geneva, Switzerland)
- Sustainable Aviation Buyers Alliance (SABA), BC-SMART

- Sustainable Aviation Fuel Alliance of Australia and New Zealand (SAFAANZ)
- Sustainable Aviation Fuel Users Group (SAFUG)
- U.K. Sustainable Aviation
- World Economic Forum Clean Skies for Tomorrow Coalition (Cologne, Switzerland)

### What future technologies is Boeing working on to make the industry more sustainable?

We believe the next generation of aircraft will incorporate the latest airframe, propulsion and systems technology, as well as various power and energy solutions for different market segments and aircraft sizes.

Boeing has been partnering across the industry on concepts for advanced aircraft that can meet specific energy efficiency, environmental and operational goals in 2030 and beyond. For example, our Transonic Truss-Braced Wing (TTBW) concept, provides a 9% improvement in fuel burn when compared to a cantilevered wing of the same technology level.

Other projects are aimed at electric propulsion maturation of various types. Our work in electric aviation and power systems is advancing in our joint venture Wisk, which is working to develop, test and certify battery-electric vehicles and their safe, autonomous deployment in the airspace. For example, Cora, a two-passenger eVTOL air taxi that we're developing with Wisk has flown more than 1,500 successful test flights since 2017.

Boeing has researched hydrogen, green hydrogen and fuel cell applications for over 15 years, including five demonstration projects and significant space-based experiences. The insights gained through our flight-demonstration programs with hydrogen fuel cells and combustion engines are informing future studies on scaled systems, configurations and infrastructure.

To accelerate innovation, we also use our ecoDemonstrator flying test bed program to take promising technologies out of the lab and test them in the air. The ecoDemonstrator has tested over 170 projects on seven airplanes to date, including the advanced technology winglets that save fuel, a laser system that can detect clear air turbulence and landing gear that lessens noise.

### How do you see governments playing a role in decarbonizing aviation, sustainable aerospace, and how can Boeing help?

Government support and policy incentives for the private sector are critical, especially to enable a transition to widespread pathways and production of sustainable aviation fuels. Government has a vital role in providing a clear, dedicated path to commercialization of SAF and supporting a diverse and sustainable feedstock supply. Increasing production and supply capacity as well as lowering the cost of sustainable fuel so it becomes price-competitive with conventional fuel are key measures that could facilitate wider use by airlines.

More specifically, developing regulatory and financial incentives for the investment, research, development, deployment and distribution of SAF should be a priority. Such an incentive-based approach would enable airlines to make purchase commitments at prices equivalent to conventional fuel and create stable market demand as the industry continues to innovate and scale. In addition,

a holistic framework unique to aviation that increases supply growth and stimulates technology development should complement such incentive mechanisms. Finally, de-risking project capital for pioneer and early-stage facilities is also crucial for ensuring that more SAF technologies reach commercial scale.

Government also has a role in continuing to ensure a level playing field for aircraft operators who need certainty that their new airplanes will be certified to the ICAO requirements. For example, in the United States, Boeing is supportive of the recently finalized EPA aircraft CO2 rule because it codifies this important global standard and facilitates manufacturers' certification to those emission requirements. The EPA rule aligns with the international standard adopted by ICAO and already in place by the European Union.

### What is Boeing doing inside its own operations to reduce greenhouse gas emissions?

Just as our customers expect operational efficiencies to reduce emissions, we know sustainable aerospace starts inside our four walls. We are focused on continual improvements in pursuit of the sustainable product life cycle. In 2020 we achieved net-zero at our manufacturing and worksites by expanding conservation and renewable energy use while tapping responsible offsets for the remaining greenhouse gas emissions. We are proud of our team and their long-standing commitment to conservation, recycling and the increased

use of renewable energy; however, there's still much to do. We have an employee engagement team dedicated to implementing new ideas and events to drive positive behavioral change every day.

The next generation of aircraft incorporates the latest digital design, test and production tools as well. These digital tools were used on the U.S. Air Force T-7A Red Hawk, which is now entering production. Improvements associated with design and production are impressive, with a 75% increase in first-time engineering quality and an 80% reduction in assembly hours. (See [Page 36](#) for more information on the T-7A Red Hawk.) Boeing Australia has also used this type of innovation on the Airpower Teaming System autonomous vehicle being developed for the Royal Australian Air Force.



Boeing Defence Australia C-17A maintenance operations planning analyst Jared Parker tests Boeing's augmented training operations and maintenance solution. It allows aircraft technicians to perform critical maintenance on the Royal Australian Air Force's giant cargo workhorse, the Boeing C-17 Globemaster III, remotely from anywhere in the world — viewing real-time, hands-free, interactive 3D holograms right before their eyes.

# Sustainable Aerospace Firsts

2008



A Boeing-converted Diamond DA20 conducts the world's first crewed flight using fuel cells powered by hydrogen



A Virgin Atlantic 747 makes the world's first sustainable aviation fuel test flight using a commercial aircraft

2009

2010



Boeing supports the supersonic flight of a U.S. Navy F/A-18 on a 50/50 SAF blend - U.S. Navy photo



Boeing partners with the U.S. Air Force on an in-depth fuel study as part of their efforts to certify the C-17 Globemaster to use SAF

2011

2012



The ecoDemonstrator 737-800 tests regenerative hydrogen fuel cell technology for onboard auxiliary power applications



The Phantom Eye uncrewed aircraft flies several flights powered by liquid hydrogen

2014

2015



Boeing supports research to help small-scale farmers in South Africa bring their feedstock crops to the aviation biofuel market



A Boeing uncrewed demonstrator flies over 100 flights in Spain using fuel cells powered by green hydrogen

2016



Boeing matures its Transonic Truss-Based Wing concept after its first wind tunnel test

2018



The ecoDemonstrator 777 Freighter becomes the first commercial airliner in the world to fly on 100% SAF



Boeing and ELG Carbon Fibre Ltd. create a first-of-its-kind partnership to recycle excess carbon composite fiber generated from making 777X wings

2019



Boeing joint venture Wisk begins flight-testing the Cora electric air taxi for urban mobility markets

2021



Boeing commits to making an entire family of commercial airplanes 100% SAF capable by 2030



The Boeing 787 Dreamliner becomes the first commercial airplane made largely from lightweight carbon composites, informing efficient design



Boeing breaks ground on the LEED Gold-certified North Charleston, South Carolina 787 Final Assembly Facility, creating an environmentally responsible approach to construction



Boeing is a founding member of the International Aerospace Environmental Group, developing a standard approach to supply chain environmental issues and innovative solutions for the aerospace industry

# APPROACH & GOVERNANCE

Boeing understands that sustainability is an integral part of our business now and in the future. We seek to make our processes and actions transparent while integrating and elevating sustainability across our global enterprise and the aerospace industry. We reinforce this approach with an unwavering commitment to our values.



Boeing's H-47 Chinook helicopter is an advanced, battle-tested heavy-lift helicopter supporting cargo and troop transport, humanitarian and special operations missions for defense forces around the world.

# Company Profile

Boeing protects, connects and explores our world and beyond. As a leading global aerospace company, Boeing develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. As a top U.S. exporter, the company leverages the talents of a global supplier base to advance economic opportunity, sustainability and positive community impact. Boeing's diverse team is committed to innovating for the future and living the company's core values of safety, quality and integrity.

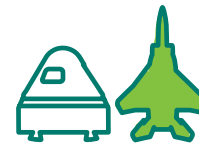
The company continues to expand its product line and services to meet emerging customer needs, including developing more-efficient commercial airplanes; designing, building and integrating military platforms and defense systems; creating advanced technology solutions; and arranging innovative financing and services for customers.

Boeing employs a diverse, talented and innovative workforce across the United States and in more than 65 countries. Our operations occupied 86 million square feet (8 million square meters) of floor space as of Dec. 31, 2020, of which approximately 93% was located in the United States. Our enterprise also leverages the talents of hundreds of thousands of skilled people working for Boeing suppliers worldwide.

## Primary Business Units



**Boeing Commercial Airplanes** designs, builds and delivers airplanes that bring superior design, efficiency and value to our customers. Today, the company manufactures the 737, 747, 767, 777, 787 Dreamliner and Boeing Business Jet families of airplanes. Our airplanes fly farther on less fuel, reduce airport noise and emissions, and provide passenger-preferred comfort while delivering superior performance to operators. The company also offers the most-complete family of freighters, and about 90% of the world's cargo is carried on board Boeing planes.



**Boeing Defense, Space & Security** offers leading and innovative solutions for global defense, government and commercial customers across a portfolio that includes mobility and surveillance aircraft, fighter jets, military rotorcraft, human space exploration programs, satellites, autonomous systems, strategic deterrence and weapons systems. Through strategic investments in research and development, Defense, Space & Security is focused on providing the most digitally advanced, simply and efficiently produced solutions to our global customers.



**Boeing Global Services** customers rely on Boeing teammates around the world to connect passengers, deliver cargo and accomplish the mission. With unparalleled access to industry innovators, agile execution and a global presence, Global Services provides efficient, off-the-shelf and tailored products, programs and services across every stage of the aviation life cycle. The solutions we deliver help solve complex challenges; improve customer outcomes in life-cycle cost, readiness, safety and reliability; and enable customers to grow and realize new business and mission objectives.

## By the Numbers



### In 2020

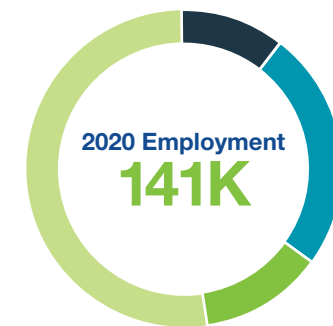
- \$26.3B Defense, Space & Security
- \$16.2B Commercial Airplanes
- \$15.5B Global Services

(See 2020 Annual Report)



### 10-year served market

- \$2.6T Defense
- \$2.9T Commercial
- \$3.0T Services



### 11% outside the U.S.

- 15,000 Defense, Space & Security
- 34,600 Commercial Airplanes
- 17,600 Global Services
- 73,700 Enterprise (including Engineering)

# Sustainability Approach

In October 2020, Boeing appointed Chris Raymond as its first Chief Sustainability Officer (CSO), a Boeing Executive Council position. Raymond is responsible for advancing Boeing’s approach to sustainability, focusing on priorities, stakeholder-oriented reporting and company performance. The CSO leads the Global Enterprise Sustainability organization, designed to sharpen our focus on key environmental, social and governance efforts through dedicated leadership alignment in these areas. Additionally, a Chief Engineer was appointed to advance Boeing’s expertise in sustainability technologies as well as future mobility applications, and a new Global Sustainability Policy and Partnerships leader strengthens our company focus on sustainability outside of the United States.

Reinforcing our commitment and enterprise approach, a Global Sustainability Council composed of global leaders from across our business units and functions was established to provide executive leadership, advocacy and partnership with the sustainability organization to advance our objectives and strategy.

We have organized our sustainability efforts around four key pillars: People, Products & Services, Operations and Communities. Our sustainability priorities and enterprise initiatives are managed through these pillars, with key goals and metrics monitored by company leaders. (See examples of key metrics in the report Appendix, [Page 72](#).)

## Collaboration

Boeing assesses and manages sustainability opportunities, challenges and risks under each pillar in collaboration with functional leaders. The Board of Directors and senior leaders have the responsibility to ensure we identify and mitigate the many strategic, technological, operational and compliance risks we face, all with our core values of safety, quality and integrity at the forefront. The company’s robust approach to risk management is achieved through our Enterprise Risk Management processes (further described on [Page 21](#)).



Boeing worked with local community stakeholders to create the Pollinator Prairie in Olathe, near Kansas City, Kansas, as part of its cleanup effort at the former Chemical Commodities Inc. site. The habitat consists of mostly native plants that provide bees, birds and butterflies food, shelter and safe areas for breeding.

## Sustainability Pillars



### PEOPLE

#### Healthy and Empowered

Our story starts with our people. We commit to advancing a collaborative, inclusive and globally diverse culture that creates unique careers in aerospace.



### PRODUCTS & SERVICES

#### Safe and Sustainable

We innovate for a better tomorrow. We demonstrate an unwavering commitment to safety, quality and integrity and instill best practices in all that we do.



### OPERATIONS

#### Responsible and Resilient

It’s not just what we do — it’s also how we do it. We operate sustainably and engage transparently on behalf of our customers and stakeholders.



### COMMUNITIES

#### Purposeful Partnerships

Our communities matter to us. We focus on global partnerships and programs that inspire our future through education, honor our heroes and strengthen our homes.

# Sustainability Priorities

As an international aerospace and defense leader seeking to protect, connect and explore our world and beyond, Boeing has many diverse global commercial and government market stakeholders. Our key stakeholders include our communities, customers, current and future employees, the flying public, investors, regulators and suppliers. In the normal course of business, we regularly engage these groups to discuss and understand their interests. This dialogue and collaboration informs our approach, goals and actions to drive sustainable, long-term value for our stakeholders.

In 2020, we reflected on our company values, the current state of our business and global conditions as we set out to define our sustainability priorities. We considered stakeholders' interests and multiple sustainability frameworks to identify and prioritize the most relevant issues.

We have defined key sustainability priorities and aligned them with responsible and inclusive business practices to enable a positive global impact. Our 11 priority areas reflect stakeholder insights, refreshed objectives, and balanced risk and opportunity across environmental, social and governance

(ESG) topics. These priorities inform the focus of this report, align to our pillars, and include short- and long-term strategic approaches to sustainability. As our sustainability journey and learnings progress, we plan to expand stakeholder engagement and mature our priorities assessment over time.

## Reporting Approach and Alignment

To address the diverse interests of our stakeholders, we have brought together a comprehensive view of our ESG activities and data in this report and are providing indexes with alignment to the Global Reporting Initiative

(GRI), Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD) and the United Nations Sustainable Development Goals (U.N. SDGs) in the Appendix. We support the goals of the Paris Agreement and consider climate change to be an urgent issue. We demonstrate the importance of climate considerations to the company by aligning our governance, strategy, risk management, metrics and targets to the TCFD core elements. To supplement this report, we publish additional information at [boeing.com/sustainability](https://www.boeing.com/sustainability).

The following key priorities will be addressed throughout this report.



### CLIMATE ACTION

Innovation to reduce the environmental impact of our products, services and operations to address challenges posed by climate change.



### EMPLOYEE SAFETY & WELL-BEING

Holistic approach to employee safety and overall well-being, including physical, financial and mental health components at work and at home.



### ENVIRONMENTALLY RESPONSIBLE OPERATIONS

Investment and initiatives to reduce the environmental impact of operations through sustainable practices including resource conservation and energy efficiency.



### EQUITY, DIVERSITY & INCLUSION

Advancement of equity, diversity and inclusion policies to create safe, productive and innovative workplace environments in which all employees can thrive.

## Sustainability Priorities (continued)



### PRODUCT & SERVICES SAFETY & QUALITY

Implementation of systems that continually reinforce and improve the safety and quality of product and services.



### COMMUNITY ENGAGEMENT

Investment in global communities through employee volunteerism, innovative partnerships and programs with a focus on STEM, veterans care and community development.



### EDUCATION & SKILL DEVELOPMENT

Investment in our workforce to attract and retain the best-qualified talent, including tuition reimbursement, learning programs, professional development and upskilling opportunities.



### ECONOMIC PERFORMANCE

Driving business performance and responding to stakeholder needs through responsible business practices.



### ETHICAL BUSINESS PRACTICES

Ethical behavior and compliance in all aspects of business operations to enhance management practices, overcome challenges and mitigate enterprise risk.



### RESPONSIBLE SUPPLY CHAIN PRACTICES

Applying sustainable supply chain principles, including supply chain diversity, small business utilization and upholding human rights to create resilience and stability within our supply base.



### DATA PRIVACY & INFORMATION SECURITY

Implementation of security practices and product security engineering to protect networks, systems and information from external threats and to enable only authorized use. Implementation of privacy controls to enable transparent, responsible and accountable processing of personal information.



# Sustainability Goals

To reflect our ambition, Boeing has set six 2030 goals to advance sustainable aerospace in alignment with our key sustainability priorities and stakeholder interests.

We are laser focused on these ambitions today and are in the process of developing waypoints and metrics to demonstrate progress, hold ourselves accountable, and push ourselves to be and do better. We will share our metrics and waypoints to 2030 in our next report.



## EMPLOYEE SAFETY & WELL-BEING

Value human life and well-being above all else and take action accordingly; we strive to prevent all workplace injuries.



## GLOBAL AEROSPACE SAFETY

Drive aerospace safety to prevent accidents, injury or loss of life, with our Boeing culture and actions rooted in safety.



## EQUITY, DIVERSITY & INCLUSION

Address representation gaps and strengthen equity, diversity and inclusion so that all team members feel supported and inspired to reach their full potential.



## SUSTAINABLE OPERATIONS

Maintain a net-zero future for Boeing operations through conservation and renewable energy; partner with the supply chain for responsible business practices.



## INNOVATION & CLEAN TECHNOLOGY

Enable the transition to carbon neutral aerospace through investments and partnerships for fleet efficiency improvements, sustainable aviation fuel and future platform technologies.



## COMMUNITY ENGAGEMENT

Build better, more equitable communities through corporate investments, employee engagement programs and advocacy efforts.

# Ethical and Compliant Business

At Boeing, we believe that how we do our work is just as important as the work that we do. Safety, quality and integrity must be at the forefront as we design, build and service our products. And we live these priorities by holding ourselves to the highest standards in our work, how we do it and how we treat one another.

Across our global enterprise, Boeing employees are united by a shared commitment to our values including transparency, accountability and respect, which serve as the guiding principles for all we do. We believe that compliance and ethical behavior are everyone's responsibility.

Boeing's Global Compliance organization, led by Uma Amuluru, Chief Compliance Officer and Vice President of Global Compliance, enables compliant company performance across all geographic locations, strengthens integrity and transparency, and demonstrates our commitment to fair and ethical business practices. She works closely with the Board of Directors, senior company leadership and external stakeholders to advance Boeing's compliance and ethics culture throughout the company. She also co-chairs the Compliance Risk Management Board and is a member of the Executive Council.

## Starting at the Top: Boeing's Board of Directors Champions Ethical Guidelines

Boeing's Board of Directors, referred to as the Board in this report, recognizes that the long-term interests of the company are advanced when they are responsive to the concerns of communities, customers, employees, public officials, shareholders, suppliers and other stakeholders.

The Board oversees our compliance and ethics programs through regular meetings with our Chief Compliance Officer, periodic reviews of program metrics and other

key indexes of how we are shaping our values and meeting our commitments. This oversight is conducted by both the Audit Committee and the full Board.

Our Board commits to a code of ethics, which serves as a source of guiding principles and identifies key areas to foster ethical decision-making, including a focus on compliance with laws, rules and regulations; confidentiality; avoiding conflicts of interest; and reporting of illegal or unethical behavior. Directors are encouraged to bring questions about particular situations to the attention of the chair of the Governance & Public Policy Committee.

## Seek, Speak & Listen

Across our company, we're focused on building three habits — seeking, speaking and listening — to strengthen our global team and drive stronger business outcomes. These habits are how we accomplish our business goals and priorities. The Seek, Speak & Listen (SS&L) habits empower us to connect across differences, learn from one another and make better decisions. By fully embracing these habits, we can improve quality, safety and performance for our employees and external stakeholders. The habits are also foundational to a culture of integrity and inclusion.



**SEEK:** Awareness can teach us and help us improve. Seeking out pockets of concern or different perspectives helps us make better decisions and strengthen an inclusive culture.



**SPEAK:** It's the right thing to do, and every voice matters. It's critical for us to speak up so we can address issues before they become problems.



**LISTEN:** It is a necessary component of learning and leads to better decisions. To be successful we need to actively listen to one another and create a space where all voices are heard.

“Our people design, build and support aerospace products that touch and affect lives around the world. That’s why we are committed to doing business and operating with integrity at all times. At Boeing, we have zero tolerance for corruption or bribery, and we are dedicated to building a culture that fosters openness, trust and accountability.”

**Uma Amuluru, Chief Compliance Officer and Vice President, Global Compliance**



## Boeing Employees Reaffirm Annual Commitment to Our Values, Code of Conduct

Inspired by our values, all Boeing employees are guided by the Boeing Code of Conduct. New employees sign the Code when they join the company, and each year all employees reaffirm their commitment to do their jobs in a fair, ethical and compliant manner.

Compliance is everyone's responsibility at Boeing, and employees must hold themselves — and each other — accountable to following all rules and regulations and to doing what is right.

For almost two decades, Boeing has held annual training for all employees to recommit to our company values. In 2020, Boeing used this training to emphasize the:

- Importance of transparency with all stakeholders, including government regulators and customers.
- Significance of creating an accountable workplace.
- Need to treat co-workers, customers, regulators and stakeholders with the utmost respect.
- Obligation of everyone to speak up when something does not align with our values.

The training features leaders and employees sharing insight about what is working and where the company can improve, to ensure mistakes are not repeated.

## When Employees Speak Up, Boeing Listens and Takes Action

At Boeing, we know that in order to improve we need to be open to new ideas, concerns and criticism. To foster an open and accountable workplace culture and candid conversations, we are doing the following:

### OFFERING MULTIPLE CHANNELS TO REPORT CONCERNS

Reinforcing our Seek, Speak & Listen habits, Boeing encourages employees to have open and candid conversations with managers and leaders at every level. If employees feel uncomfortable speaking up, the company also offers confidential and anonymous reporting channels.

These channels include the Ethics U.S. domestic and global reporting hotlines; Ethics portal; a team of Ethics Advisors; and the Speak Up website, where employees can go to report issues or concerns regarding product or service safety or quality, workplace safety or ethics.

### PROTECTING THOSE WHO SPEAK UP

We have seen the serious consequences our entire company faces when we don't seek, speak and listen. It is our individual responsibility to hold ourselves and one another accountable to support an environment where employees feel empowered to raise concerns without

fear of reprisal. Boeing enforces a strict non-retaliation policy, reinforced by annual training and recurrent employee communication.

## Understanding Ethical Concerns With Data

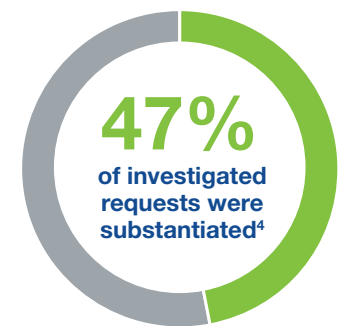
We are improving our ability to analyze available reporting data to identify areas of concern, understand the root cause of the problem and address any issues. The chart below demonstrates Boeing's efforts to respond to ethical concerns. Additionally, our anonymous reporting rate is lower than other published benchmarks, which suggests employees generally trust management to address their concerns and do not fear retaliation.

**3,181** inquiries<sup>1</sup>

**4,786** investigative requests

**1,864** conflict of interest determinations

**9,831** total contacts with Ethics submitted by employees in 2020<sup>2</sup>



1. Inquiries comprise Requests for Guidance and Information Requests. Requests for Guidance are situations where employees are seeking guidance when facing ethical dilemmas or when they need assistance in understanding company policies or expected behaviors. Information Requests are situations where employees are seeking general information. Both demonstrate awareness of Boeing's Ethics and Compliance program, but Requests for Guidance are viewed as the most positive types of contact.

2. Data reflects the reporting period of November 2019 through October 2020.

3. Investigated matters are considered unsubstantiated when the investigation findings do not support a violation of policy or expected behaviors or where there is not sufficient evidence of misconduct.

4. A recent evaluation demonstrated that Boeing's substantiation rate is slightly higher than other published benchmarks, indicating an effective investigation process and informed reporting by company employees.

## Why Compromising Boeing's Values Is Not an Option

Boeing has zero tolerance for bribery and corruption of any kind, and we remain committed to competing globally with transparency and honesty. We believe that businesses should compete on the basis of quality, price and service and in compliance with applicable anti-corruption laws, including the Foreign Corrupt Practices Act and equivalent global laws.

## Anti-Corruption Program

To ensure compliance, Boeing has a robust anti-corruption program that includes extensive controls, rigorous policies and procedures, and an annual risk assessment to ensure effectiveness and identify potential enhancement opportunities.

Additionally, retaliation against reporting parties is strictly prohibited, and appropriate action is taken against violators of anti-retaliation policies. Boeing also ensures that employees

are aware of their federally protected whistleblower rights, which are designed to protect employees against retaliation for reporting potential wrongdoing by a U.S. government contractor or subcontractor.

## Commitments and Actions on Human Rights

Boeing is committed to responsible business practices and promoting positive change while simultaneously creating value for our customers, shareholders and other stakeholders. In recognition of this commitment, the company has developed policies and practices designed to enforce our Code of Basic Working Conditions and Human Rights. We expect similar commitments and behaviors from our suppliers. These expectations are incorporated into our supplier contracts and monitored through both in-person engagements and third-party monitors.



Boeing's Anti-Corruption Compliance Program is organized into nine risk areas, including Books and Records, each governed by detailed policies and procedures to demonstrate the company's zero tolerance for corruption.

✈ To learn more about Boeing's commitment to human rights issues, visit [www.boeing.com/principles/human-rights.page](http://www.boeing.com/principles/human-rights.page).

# Governance and Risk Management

As a company at the forefront of innovation, Boeing takes measured risks each day. Senior management is responsible for day-to-day risk management, including the creation and implementation of risk management policies and procedures. The Board is responsible for overseeing management in the execution of its risk management responsibilities and for assessing the company's approach to risk management.

## Board of Directors

The Board has extensive oversight of key strategic, operational and compliance risks, with a sharpened focus on risks that could affect the safety and quality of our products and services, as well as other risks such as cybersecurity. The Board has significant involvement in strategy development, such as efforts to reduce emissions in our production facilities, develop targeted community engagement strategies, and enhance workforce diversity and inclusion. The Board also oversees our global ethics and compliance efforts, corporate culture, and political and charitable contributions.

Recent Board discussions have addressed shareholder feedback on a variety of topics, including Board leadership, company culture, executive compensation, sustainability priorities and strategic priorities, often resulting in changes to our policies and practices as well as guiding the focus of discussions in the boardroom. For example, in 2020, we amended our Corporate Governance Principles to require that our Board chair be an independent director. In addition, this past April, we made a public commitment to provide additional disclosures regarding our political advocacy activities, including additional detail regarding the Board's oversight role and our policies and procedures in this area. We believe that these enhancements will give shareholders and other stakeholders insight into how our Board assesses the risks and opportunities related to engagement in the political process, enabling us to advance our shared priorities in a way that supports Boeing's core values.

The Board oversees a variety of sustainability-related topics in the following areas, including through its committees. The Governance & Public Policy Committee's responsibilities include overseeing the company's practices

relating to public policy and corporate sustainability, including matters related to environmental stewardship and climate change and diversity, equity, and inclusion, as well as the company's political advocacy efforts and expenditures; making recommendations to the board with respect to board composition and refreshment; and overseeing annual performance evaluations of the board and individual directors.

## RISK MANAGEMENT

The Board regularly assesses significant risks to the company in the course of reviews of corporate strategy and the development of our long-range business plan, including significant new development programs. As part of their responsibilities, the Board and its standing committees also regularly review strategic, operational, financial, compensation and compliance risks with senior management. Examples of risk oversight activities conducted by the Board's committees, subject to committee report-outs and full discussion at the Board level, can be found in [Boeing's 2021 Proxy Statement](#).

## PRODUCT SAFETY

The Aerospace Safety Committee, established by the Board in 2019, is responsible for directly overseeing our engineering, design, development, manufacturing, production, operations, maintenance and delivery of aerospace products and services in order to ensure the safety of our commercial, defense, space and other aerospace products and services. In addition, the Aerospace Safety

Committee consults with the Compensation Committee in connection with the safety review portion of the individual executive performance evaluations.

## DIVERSITY AND INCLUSION

The Board actively oversees our efforts on diversity and inclusion, including regular reviews of workplace diversity metrics, regular reviews of complaints received — and corrective actions taken — related to behavior that is inconsistent with our values, and supervision of our outreach efforts. The Board is also committed to the diversity of its own membership, with 45% of our directors, including three committee chairs, being diverse with respect to gender or race/ethnicity (as of July 2021).

## CLIMATE CHANGE

Environmental sustainability is an integral part of our strategy, and the Board has significant involvement in strategy development for our products, services and operations. We take into account how every product we build and service we provide affects our world now and in the future. That is one reason why each new generation of Boeing airplanes reduces emissions and fuel use 15%-25% more than the previous generation and has noise footprints up to 50% smaller than its predecessors. We have also committed to reducing greenhouse gas emissions from our operations by 25% by 2025 (from 2017 levels) and achieved net-zero at our manufacturing and worksites for the first time in 2020.

## Compliance Risk Management Board and Enterprise Risk Visibility

- The Compliance Risk Management Board (CRMB), jointly co-chaired by Boeing’s Chief Compliance Officer and Controller, includes senior company leaders who identify, evaluate and prioritize the most significant compliance risks; assess mitigation strategies; and provide visibility to Boeing’s CEO and the Audit Committee of the Board. The CRMB also regularly pressure-tests the risk mitigation measures to ensure the strongest compliance program possible.
- Results of the compliance risk management assessment are incorporated into Enterprise Risk Visibility (ERV). The full Board reviews enterprise risks on a regular basis as well as conducts regular reviews of our ethics and business conduct programs.
- CRMB and ERV assess risks to the company and industry, including topics within the environmental, social and governance elements of sustainability, such as climate and policy change.
- The Chief Compliance Officer, with involvement from other senior executives, reports at least annually to the Audit Committee on Boeing’s compliance with risk management processes as well as provides regular reporting on the company’s compliance and ethics programs.

- All employees, from senior leaders to new workers, receive annual training on compliance risk areas tailored to their specific work, including U.S. Department of Defense procurement rules, proper handling of sensitive information and anti-corruption.

## Business Continuity Management

Boeing navigated a series of challenges in 2020 that had clear implications for the company’s risk profile, including:

- Economic and workplace disruptions brought on by COVID-19.
- Social and political issues.
- Organizational and structural challenges.
- Regulatory review of the 737 MAX.

Through Business Continuity Management practices, we identify vulnerabilities and develop recovery strategies and plan to minimize the consequences and impact of potential threats or disruptions. Boeing Business Continuity Management is built on five unique programs: Business Preparedness, Emergency Preparedness, Information Technology Preparedness, Supply Chain Preparedness and Human Resource Preparedness, all of which come together to help Boeing recover from an emergency or disaster.

## Tax Governance and Compliance

Aligned with company values, we are committed to being a responsible taxpayer in every jurisdiction where we operate. Our global team of tax professionals is responsible for maintaining the highest compliance standards, being transparent in our dealings with tax authorities and sustaining robust internal controls for risk management. Boeing’s approach to taxes includes a commitment to ethical business practices, tax guidance that follows business substance, and our obligation to protect the interests of the company and its shareholders.



“Sustainability is a critical element of our Boeing framework and culture. As part of our commitment for responsible and ethical leadership we have adopted sustainability into our approach for how we manage enterprise risk. For us, managing risk is about truly understanding and adapting for the dynamic and complex global landscape in which we operate.”

**Carol Hibbard, Senior Vice President and Controller**

✈ Please visit our website for a more in-depth analysis of Boeing’s approach to [Global Tax Governance and Compliance](#).

# PEOPLE

## Healthy and Empowered People

Our story starts with our people. We commit to advancing a collaborative, inclusive and globally diverse culture that creates unique careers in aerospace. Our people create value for all stakeholders. Our global community — composed of more than 140,000 people of all backgrounds, ethnicities, identities and perspectives — is foundational to our continued success. United by a common goal to protect, connect and explore, our team is working every day to develop, build and service world-class aerospace products while supporting our customers. Boeing enables those efforts by prioritizing employee safety; fostering an equitable, diverse and inclusive work environment; providing professional development opportunities to position our team for the future; and offering comprehensive and competitive benefits.

## Sustainability Goals

### EMPLOYEE SAFETY AND WELL-BEING

Value human life and well-being above all else and take action accordingly; we strive to prevent all workplace injuries

### EQUITY, DIVERSITY AND INCLUSION

Address representation gaps and strengthen equity, diversity and inclusion so that all team members feel supported and inspired to reach their full potential

### U.N. SUSTAINABLE DEVELOPMENT GOALS



Richa Gupta,  
Project Management Specialist,  
Corporate Compliance

# Safety-First Culture

Nothing is more important than safety — in the workplace and in the products we design, build and support. We are committed to keeping our employees safe by fostering a positive safety culture, cultivating safe work environments and strengthening our safety processes through continuous improvement, learning and innovation.

The Safety Guiding Principles provide a framework to achieve the goal of zero workplace injuries so every person who works at, or visits, a Boeing site leaves as safe and healthy as when they arrived. Boeing’s workplace safety program, Go for Zero, is a holistic approach to preventing sickness or injuries at work and at home, stemming from the belief that every injury is preventable.

Achieving zero injuries is a constant endeavor. By continually identifying gaps and measuring progress using industry standard approaches, Boeing’s internal compliance requirements often exceed those set by government regulations.

Every employee has the responsibility to make safety and quality top priorities. Through valuing human life and well-being above all else and taking action accordingly, Boeing will continue to foster an open culture where people are empowered and encouraged to speak up about any concerns with the assurance that they will be taken seriously.



“Operating to keep ourselves and our teammates safe is everyone’s responsibility. Safety is absolutely central to everything we do for ourselves, our loved ones and our communities.”

**Kory Mathews, Vice President,  
Enterprise Services**



Boeing Everett employee Thyda Reath works with safety in mind.

## WORKPLACE SAFETY BY THE NUMBERS

# 24:1

Near Miss to Hazard  
(ratio to recordable injuries)

# 98%

Found/Fixed Metric

# 0.43

Lost Workday  
(case rate out of full day)

# 950

Health and Safety  
Training Courses  
Available



## Safety-First Culture (continued)

In response to the COVID-19 pandemic, Boeing employees took critical steps to help keep themselves, their colleagues, their families and our communities safe. A majority of our employees began working remotely, while others quickly incorporated new COVID-19 safety practices into their work, which made it possible to safely reopen paused production lines.

Our occupational health and safety management system conforms to the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001 standard, and is migrating to International Organization for Standardization (ISO) 45001. As of 2020, 49 sites are verified to conform to OHSAS 18001 and are transitioning to conform to the ISO 45001:2018 standard.



“We’re focusing our efforts on safety, first-time quality, process discipline and debris prevention so we can deliver perfect products to our customers. And it all starts with keeping these commitments.”

**Bill Osborne, Senior Vice President, Total Quality and Operations, Boeing Defense, Space & Security, and Chair, Enterprise Manufacturing Operations Council**



Boeing and its mechanics work to develop a robust production system. Logan Schimon works in 737 Manufacturing.

### ONE BOEING PRODUCTION SYSTEM (ONE BPS) COMMITMENT

In everything we do and in all aspects of our business, we will ensure our people, safety and integrity are our top priorities by focusing on the One BPS Commitment and always striving for first-time quality.

- A safe workplace
- The right training to do work safely and with first-pass quality
- The right tools, properly calibrated for the work
- The right part, defect-free at the point of use
- Feedback on individual and team performance
- Reward and recognition for a job well done
- A way to call for and receive timely help



## SPOTLIGHT: Kadon Kyte

### How an Idea on a Napkin Became a New Boeing Standard

Boeing has made the reduction and eventual elimination of sanding-related ergonomic risk a top priority.

Sanding overhead surfaces can present ergonomic risk due to strain on the shoulders and vibrations in the hands. Kadon Kyte, a human factors engineer, had the unique experience of investigating potential solutions for this challenge — and even trying them himself.

After 15 minutes of sanding an aircraft, Kyte noticed discomfort in his shoulders, arms and neck. As he mulled the problem, a simple but potentially promising concept came to mind: a sanding rotator head coupled to an extendable actuator rod. Kyte sketched on the most time-honored of inventor's tools, a napkin.

### EXPERTS CREATE PROTOTYPE IN DAYS

Kyte shared the monopodic — pertaining to a single foot — sanding device drawing with engineering colleagues Jason Kerestes and Colton Smoot. With their mechanical,

robotics and fabrication experience, the three developed a working prototype in a few days. The concept was then successfully tested on simulated aircraft structures before moving on to a real-world test a few months later.

Kyte was the first to test the prototype. After an hour of testing, the team identified several areas for improvement and worked to make adjustments to ensure a usable product.

### ERGO — AN INJURY-SAVING SOLUTION

The team has now developed three generations of the monopod sander, continually improving and implementing new standards for overhead aircraft sanding at Boeing.



“This is testament to the great work that can be executed by engineers working directly with the folks who do the job every day to make their work safer.”

**Kadon Kyte, Enterprise Human Factors Engineer**

Kadon Kyte, Enterprise Human Factors Engineer

# Global Equity, Diversity and Inclusion

Equity, diversity and inclusion are foundational values at Boeing and key drivers of business outcomes, as well as safety, quality and innovation. Each member of our global team brings a unique perspective, and we grow stronger when everyone has an opportunity to contribute. We are committed to the necessary and challenging work of building an environment in which each teammate

has a voice and feels inspired to achieve their full potential. Transparency is the foundation of this commitment, and we will share our progress each year in our new Global Equity, Diversity & Inclusion Report.

## 2025 Global Equity, Diversity and Inclusion Aspirations

Boeing aspires to be the world's most equitable, diverse and inclusive company. This vision is bold and will require us to live our commitments consistently, every day, across all levels. To address our representation gaps and build a culture of inclusion, we have established a set of aspirations we will strive to achieve by 2025:



“At Boeing, we know our success relies on our ability to honor and celebrate the best in everyone, of every background and identity. To create a culture where all teammates can achieve their full potential, we are seeking the perspectives of team members around the world, encouraging each other to speak up, share ideas and concerns, and succeed together. We will continue to amplify all voices at Boeing because inclusion makes our teams stronger, and it makes every one of us better.”

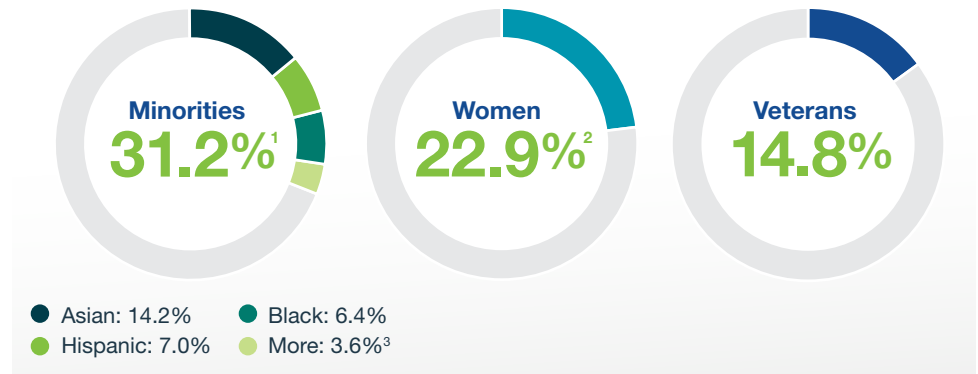
**Sara Bowen, Vice President, Global Equity, Diversity & Inclusion**

- 1** **Increase** the Black representation rate in the U.S. by 20%.
- 2** **Achieve** parity in retention rates of all groups.
- 3** **Close** representation gaps for historically underrepresented groups.
- 4** **Advance** common understanding, shared experiences and mutual respect.
- 5** **Report** diversity metrics and progress annually.
- 6** **Eliminate** any statistically significant differences between the workplace experiences of underrepresented and at-representation groups.



Boeing employees, left to right: Malika Allen, Taylor Hickman, Tiffany Javid, Trinity Downing

## 2021 Diversity Metrics



1. Race and Ethnicity Data: U.S.-based work locations of The Boeing Company, excluding non-fully integrated subsidiaries that are not on Boeing HR systems.

2. Gender Data: U.S.-based work locations of The Boeing Company, excluding subsidiaries except where noted.

3. "More" includes American Indian/Alaskan Native, Native Hawaiian or Other Pacific Islander, and Two or More Races.

✈ See the latest [Global Equity, Diversity & Inclusion report](#) for more detailed information.

“What’s happening across the U.S. now goes beyond discrimination and harassment, beyond diversity and inclusion. What we’re seeing is the ongoing human cost of historic and persistent racial inequality in the United States. It’s clear that we as a society — and as a company — have more progress to make in confronting racism and achieving racial equity.”

**Dave Calhoun, President and CEO**



## SPOTLIGHT: Racial Justice Actions

### Addressing Human Cost of Persistent Racial Inequality

Boeing established a Racial Equity Task Force in 2020 to advance the cause of racial equity in our workplace and communities. The 20 members of the task force represent a diverse mix of viewpoints and experiences from different sites, positions and backgrounds. They will make recommendations on the company’s efforts, share ideas and advocate on behalf of underrepresented people across Boeing.

### EQUITY ACTION PLAN

1. Advance inclusion and equity for all.
2. Confront racism head-on.
3. Build and support a coalition among communities and suppliers.



“We are not only leaders in the aerospace industry but also leaders in addressing racial inequalities and discrimination. We recognize that this work starts internally. Boeing is a microcosm of broader society, which gives us a foundation and platform to make real change. We created the Racial Equity Task Force to take a hard look at ourselves in order to be better today and for future generations, while also hoping that our progress sets an example for the greater community.”

**Tommy Preston, Director, National Strategy & Engagement, Government Operations**

“As a company and as a society, we must do better to confront racism head-on, and we must do better now. People need to see progress, and with the Racial Equity Task Force, we’re taking specific actions to deliver on aspirations of diversity, equity and inclusion — both within Boeing and the communities in which we operate.”

**Leanne Caret, President and CEO, Boeing Defense, Space & Security**

**Boeing Business Resource Groups Nurture Equity, Diversity and Inclusion**

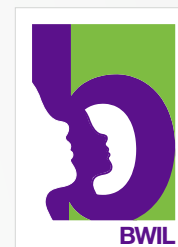
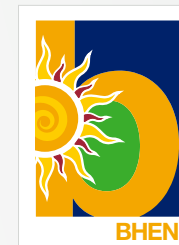
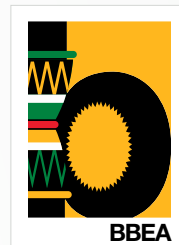
Our differences make us better and representation matters. Business Resource Groups empower and unify our people around particular experiences and traits to make Boeing better.

**WHAT ARE BUSINESS RESOURCE GROUPS?**

Business Resource Groups are volunteer, employee-driven groups centered on particular experiences or traits, such as ethnicity, race, gender identity, sexual orientation, disability or veteran status. Each group is led by an executive champion, one of our CEO's direct reports, who helps each group succeed. Each group is open to everyone, whatever their background or identity, and is based on four common pillars.

**NINE BUSINESS RESOURCE GROUPS**

- Boeing Asian and Pacific Association
- Boeing Black Employees Association
- Boeing Employees Ability Awareness Association
- Boeing Employees Pride Alliance
- Boeing Familia
- Boeing Generation to Generation
- Boeing Native American Network
- Boeing Veteran Engagement Team
- Boeing Women Inspiring Leadership

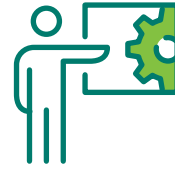


**4**

**Business Resource Groups Common Pillars**



**COMMUNITY INVOLVEMENT**



**PROFESSIONAL DEVELOPMENT**



**BUSINESS ALIGNMENT**



**TALENT ENGAGEMENT**

**BY THE NUMBERS**

**12,800+**  
Employees Engaged

**152**  
Chapters

**9**  
Countries

# Professional Development, Education and Learning

## Enhancing Boeing's Talent

Boeing is dedicated to growing and developing a broad pipeline of aerospace talent at all levels. Our professional development programs provide education and training opportunities for current, former and future employees. We want our people to think about working at Boeing as a lifetime endeavor — full of opportunities to achieve their personal and professional goals. We understand that by supporting our team today, we build a successful tomorrow.

## CONTINUOUS DEVELOPMENT

For current employees, our Workforce Development System offers continuous development, lifelong learning and “upskilling” opportunities. This includes the industry-leading Learning Together Program, which provides generous tuition assistance for degree programs, professional certificates and individual courses in strategic fields of study from more than 300 accredited colleges and universities globally. Employees also have access to the company's internal learning curriculum, as well as thousands of learning assets through our digital campus.

As workforce transitions occur, Boeing supports redeployed or departing employees with resources and training for the next step in their careers.

## INSPIRING STEM

To inspire the next generation of aerospace talent, Boeing invests in STEM education programs to equip K-12 students with math and science skills. The company also grants funding for university research and helps shape degree programs to prepare graduates for careers in aerospace. (See [Page 52](#) for more information about Boeing's community engagement efforts.)

## COMPETITIVE BENEFITS AND COMPENSATION

To attract and retain the best-qualified talent, we offer a comprehensive total rewards package, including market-competitive compensation, health care, paid time off, parental leave, retirement benefits, tuition assistance, employee skills development, leadership development and rotation programs.

Boeing invested over \$17 billion in pay in 2020 to recognize and reward individual performance. We foster a diverse, collaborative and inclusive environment that empowers our employees to do their best. Equal pay for equal work is a foundational element of our approach. We take action through ongoing

pay reviews to ensure that our employees are compensated equitably throughout their careers — independent of race, gender or ethnicity. It's the right thing to do and makes us a better, more inclusive and higher-performing company.

Annual incentives are a cornerstone of our pay-for-performance culture. Generally, the better the company does, the better the incentive award opportunities. For most of our workforce, individual performance is also a factor in determining annual incentive payouts. We incorporate our values — with a particular focus on safety, quality and integrity — into our evaluation of individual performance.



**\$17 BILLION INVESTED  
IN PAY IN 2020  
TO REWARD INDIVIDUAL  
PERFORMANCE**



Boeing employees, top left to right: Imelda Wishart, Felipe Colon, Jason Pringle, Emily Boucher, Delphine Jackson, Jason Pak

## Quest to Attract, Develop and Retain Top Talent

Boeing is committed to attracting, developing and retaining world-class talent and providing them with what they need to thrive both personally and professionally. The company offers a comprehensive total rewards package that includes competitive compensation, health care, work-life balance support, career development resources and financial security programs.<sup>1</sup>



Shandra Jackson, Industrial Engineer

1. While some benefit programs are global, certain programs and offerings vary by country, subject to program availability, local laws and customs.



### COMPENSATION

Boeing invests more than \$17 billion annually to compensate and reward employees through base pay, incentive opportunities and formal recognition programs.



### HEALTH CARE AND WELL-BEING

Boeing provides comprehensive health care coverage to support both physical and mental well-being, including telehealth and virtual care options.



### WORK-LIFE BALANCE

Boeing offers generous paid time off as well as family-focused resources for child and elder care, adoption assistance and 12 weeks of paid parental leave.



### CAREER DEVELOPMENT

Boeing delivers industry-leading tuition assistance, user-centric digitally enabled learning journeys, and employee development and rotational programs.



### FINANCIAL SECURITY

Boeing provides retirement benefits, financial well-being programs and insurance coverage to help employees achieve financial security during and after their career.



### SPOTLIGHT: Scientist Hears the Boeing Code: ‘What Others Dream, We Do’

Amani Alonazi is an artificial intelligence scientist, working in a visual computing center at King Abdullah University of Science and Technology (KAUST) in Thuwal, Saudi Arabia.

Alonazi is part of a multidisciplinary Boeing Research & Technology team developing methods that will detect ground hazards for airplanes in airport environments. The work involves the convergence of high-performance computing and artificial intelligence (AI).

“A new level of intelligence will appear,” said Alonazi, new to Boeing in 2019. “I met with scientists from Seattle, Madrid, Dubai and

Amani Alonazi is an artificial intelligence scientist, working in a visual computing center at King Abdullah University of Science and Technology in Thuwal, Saudi Arabia. She is part of a global team focused on using AI and high-performance computing to make air travel even safer.

Saudi Arabia, and I was very excited to see it this diverse. I really wanted to be part of that.”

Alonazi occupies a computing workstation at KAUST. She and the Kingdom of Saudi Arabia’s first coed institution of higher learning have grown up together. Three years after it opened, Alonazi became a scholarship student there. In 2019, she went to work on its campus for Boeing.

Her role is twofold: She is part of a global Boeing Research & Technology team advancing aerospace, and she contributes to university research projects. She has access to the university’s supercomputer,

Shaheen, which translates to “fastest bird” in the Arabian culture. She finds inspiration amid a diverse student population that includes 102 nationalities and a faculty that holds international credentials.

Boeing hired Alonazi after she completed a master’s degree and a doctorate at KAUST and obtained a master’s degree from University College Dublin, in Ireland, all in computer science. Her work involves using AI with high-performance computing to detect airport ground hazards. She is highly motivated to create machine-learning methods.

“I heard the Boeing code: ‘What others dream, we do,’” she said. “I’m very excited for my journey ahead.”

### Employee and Labor Relations

Boeing works with employee representative bodies where appropriate. Where employees are represented by a legally recognized union, we are committed to developing a productive relationship with our employees’ representatives and engaging in good-faith negotiations. As of Dec. 31, 2020, our workforce is composed of approximately 47,000 union-represented employees globally. Our principal collective bargaining agreements were with the unions listed in the table to the right.

### Working With Representative Bodies

Union	Our Employees Represented (%)	Status of Agreements With Major Union
International Association of Machinists and Aerospace Workers (IAM)	20%	Two major agreements, one expiring in July 2022 and one in September 2024
Society of Professional Engineering Employees in Aerospace (SPEEA)	10%	Two major agreements expiring in October 2026
United Automobile, Aerospace and Agriculture Implement Workers of America (UAW)	1%	One major agreement expiring in October 2022
Australian Manufacturing Workers’ Union (AMWU) and Professionals Australia	1%	One major agreement expiring in June 2021
Unifor (Canada)	<1%	One major agreement expiring in June 2023



# PRODUCTS & SERVICES

## Safe and Sustainable Aerospace

We innovate for a better tomorrow. We demonstrate an unwavering commitment to safety, quality and integrity and instill best practices in all that we do. Boeing designs, builds and services the safest form of transportation in history. Innovation advances a safe and sustainable future. We pledge to remain focused, transparent, vigilant and humble in our work. Boeing and the aviation industry recognize that climate change is an urgent challenge of our time. Boeing has a multifaceted strategy that allows our industry to decarbonize aerospace while ensuring the connectivity, societal and economic benefits that come from air travel are available to people everywhere.

## Sustainability Goals

### GLOBAL AEROSPACE SAFETY

Drive aerospace safety to prevent accidents, injury or loss of life with our Boeing culture and actions rooted in safety

### INNOVATION AND CLEAN TECHNOLOGY

Enable the transition to carbon neutral aerospace through investments and partnerships for fleet efficiency improvements, sustainable aviation fuel and future platform technologies

### U.N. SUSTAINABLE DEVELOPMENT GOALS



The Boeing ecoDemonstrator program takes promising technologies out of the lab and tests them in the air to make flying safer and more sustainable.

# Aerospace Safety and Quality

Safety is a fundamental value and our highest priority. We take seriously the responsibility to ensure those who fly on and service our products are safe.

Everyone at Boeing will never forget the lives lost and where the company fell short in the tragic 737 MAX accidents. Based on key lessons learned, we implemented a series of meaningful changes to strengthen our safety practices and culture and bring lasting improvements to aerospace safety.

These changes include uniting critical safety teams and functions under the leadership of Mike Delaney, our first-ever Chief Aerospace Safety Officer. Aligning these groups into a consolidated team helps drive safety across every aspect of our operations and helps enable end-to-end accountability throughout the safety ecosystem.

In 2020, Boeing began implementing its enterprise Safety Management System, or SMS. As an integrating framework for managing safety risks throughout the product and service life cycle, our SMS will incorporate data from employee reporting, production, compliance, quality and safety processes. This will provide line of sight to risks, incidents and identified hazards so we can proactively mitigate issues and continuously improve safety performance.

Ultimately, the intent of SMS is to bring the right data into the right forums with the right people to make data-driven, risk-based decisions that result in safer products. It is a journey of continuous improvement informed by existing data — including what is publicly available in Boeing's annual Statistical Summary of Commercial Jet Airplane Accidents report — and ongoing development of increasingly better safety analytics.

The nature of Boeing's work is both technical and personal. We know that protecting people starts with people. Foundational to SMS is a positive safety culture in which every employee is empowered and encouraged to voice concerns, raise issues and share ideas.

## Answering Stakeholder Expectations for Quality

Boeing is taking comprehensive action to continuously improve quality. Boeing employees from each of our businesses work together to drive improvements that will help us build first-time quality into everything we do. Across the company, Quality teams are implementing standard practices aimed at helping us all do our work the right way — the first time, every time — while solving problems using a structured methodology to eliminate root causes and prevent recurrence.

## LEADING IN A RAPIDLY CHANGING WORLD

Operating in a rapidly changing environment with a growing range of global competitors, our people remain our best competitive advantage. We invest in them by providing needed resources and training. Advanced Product Quality Planning (APQP) is a structured approach to product and process design that spans Product Engineering, Production Engineering, Quality, Supply Chain and Manufacturing to ensure that quality is designed into the product and controlled throughout every step — from concept to production. The APQP framework ensures quality products are delivered on time while satisfying cost performance targets, by designing quality into the product — even before the first prototype is built — instead of detecting and addressing problems in the finished product.



“From information gathered through risk assessment processes to the issues and ideas employees bring forward, our Safety Management System relies on data. We're taking an eyes-wide-open approach to how we use that data to continuously learn and improve — always with our sights set on safety.”

**Mike Delaney, Chief Aerospace Safety Officer and Senior Vice President, Global Aerospace Safety**



Boeing is building first-time quality into everything we do. Pictured here is Christal Nesby and colleagues from P-8 Final Assembly working to take quality to the finish line.

# Sustainable Product Life Cycle

## Circularity: Sustainability Is Built In

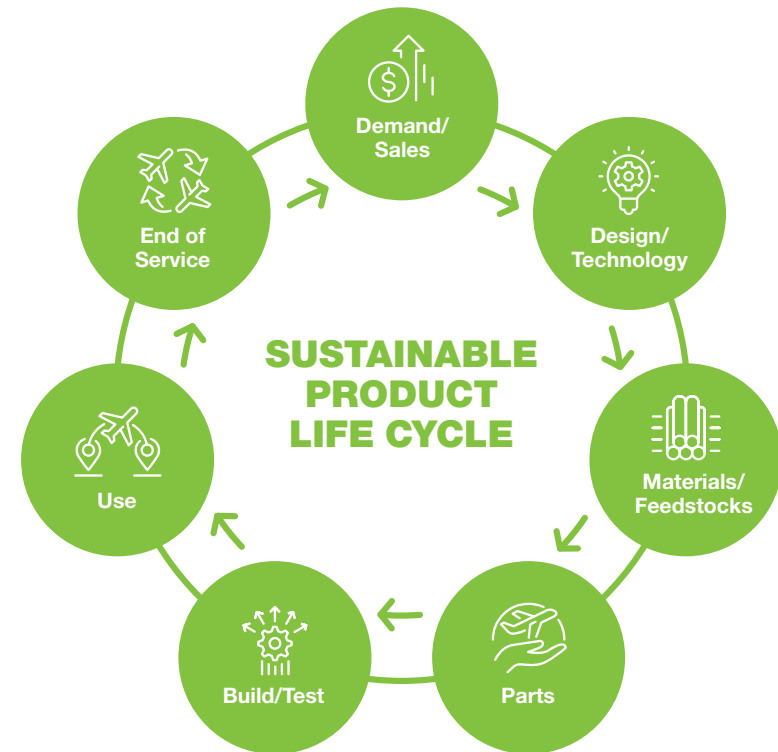
From a customer's initial request to the creation of the aircraft or product to its use and eventual retirement, every stage along the way is engineered with sustainability in mind. This is Boeing's life-cycle approach: design, build, deliver and support each of its products and services with the highest standards of safety, quality and integrity. Here we hone in on a few examples.

## Designing Sustainability Into Our Systems

As a technology and innovation leader, Boeing invests in Design for Environment, a systems engineering approach to improve the environmental performance of our products, services and operations. The goal of this approach is to reduce the risks and expenses associated with a product's environmental footprint and accelerate environmental performance gains at all stages in the product life cycle, from raw material extraction to manufacturing, through in-service operations to end of service and beyond. Sustainability is taken into account at every stage of a product's life cycle, embedding environmental considerations in standard design processes, from early technology research and development to product and production system definition and build.

Environmental assessment calculators allow researchers and engineers to efficiently quantify the magnitude of environmental impacts of their specific technologies throughout the technology's development, which informs internal decision-making using valid environmental data.

For new aircraft, sustainability analysts perform detailed life-cycle assessments (LCA) at multiple defined stages of the standard product development process. Embedding standard environmental assessment steps within existing engineering processes allows sustainability to be evaluated with a methodical and repeatable approach, and those impacts are considered not just at the design and manufacturing phase but through the entire life cycle of the product. Boeing's standard is to conduct a full and thorough LCA for any new Boeing Commercial Airplanes product, and the company has performed LCAs on numerous projects and products, including our most recently introduced aircraft, the 777X, 737 MAX and 787 Dreamliner. We use simplified LCAs to evaluate individual materials or technologies. The company uses Sphera's GaBi LCA software. LCA is the analysis of the environmental benefits and burdens associated with an existing or proposed product, process or facility throughout the life cycle of the entity being analyzed.



“We ensure sustainability is built in during every step of our products’ life cycles — whether we’re finding solutions to reduce our carbon footprint, keep our employees and air travelers safe, source responsibly or to serve our communities.”

**Tia Benson Tolle, Director, Advanced Materials and Sustainability, Product Development, Boeing Commercial Airplanes**

### BUILD/TEST

During the manufacturing process, Boeing works to recycle excess carbon-fiber material from commercial airplane assembly. This recycling initiative has the potential to divert up to 1 million pounds (454,000 kilograms) of waste from landfills each year and can be utilized by our partners and potentially by non-aerospace generators.

Launched in 2010, the Boeing ecoDemonstrator program accelerates innovation by taking promising technologies out of the lab and testing them in the air. (See [Page 38](#) for more information on the ecoDemonstrator.)

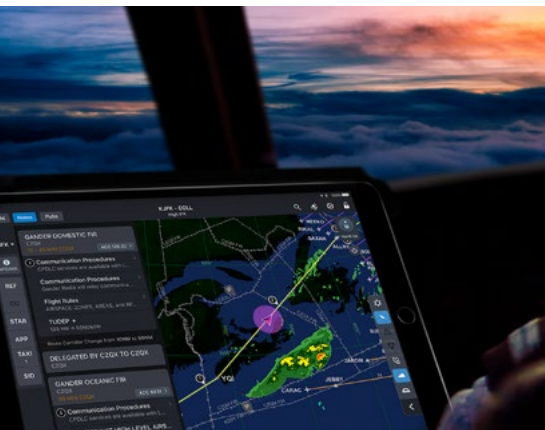
### USE

After airline customers take delivery of Boeing airplanes, the company offers data analytics services to help them optimize flight planning, fuel efficiency and overall fleet operations.

These services — including our Fuel Dashboard and FliteDeck Advisor applications — enhance airplane utilization, on-time operations and airspace usage, driving significant savings across fleets.

### END OF SERVICE

Boeing is contributing to reducing waste by reusing and recertifying airplane parts. Boeing recertifies parts ensuring quality. Parts are acquired through the dismantling of out-of-service planes. Boeing has harvested materials from retired 777, 767 and 737 airplanes, as well as non-Boeing-manufactured aircraft. Boeing is a founding member of the Aircraft Fleet Recycling Association, the leading global organization for developing and promoting the safe and sustainable management of circularity of components and aircraft in the aviation sector.



FliteDeck Pro Advisor application.



Dismantling equipment for recycling.



### SPOTLIGHT: T-7A Red Hawk

#### Boeing Trainer Leads the Way in Digital Engineering

Some solutions affect many aspects of the product life cycle. There is a particularly prevalent intersection between digital engineering and sustainability. The U.S. Air Force designated the T-7A Red Hawk advanced trainer as the first in its digital “eSeries” of aircraft. Embracing model-based engineering and 3D design tools, the T-7A Red Hawk achieved a 75% increase in first-time engineering quality and an 80% reduction in assembly hours. With digital engineering, more testing is done in the simulator. Dan Draeger, Boeing Test & Evaluation chief tactical aircraft test pilot, still remembers the T-7A Red Hawk’s first flight and how different it was from other development stories on other aircraft he’s flown.



**80% REDUCTION IN ASSEMBLY HOURS FOR THE T-7A RED HAWK TRAINER USING MODEL-BASED ENGINEERING**

“We had already flown the jet in the simulator using the exact same digital software many times rehearsing for this flight. So when it comes to the real thing, we know what to expect — the jet flew exactly as it was supposed to, no surprises,” said Draeger.

# Innovation and Clean Technology

## Working to Decarbonize Aviation

Our company and our industry recognize that decreasing carbon emissions is an urgent challenge of our time, and we are united in our commitment to decarbonize aviation so billions of passengers can continue to fly every year to connect with friends and family, discover new places and cultures, engage in commerce and care for those in need.

Achieving this objective requires a portfolio of solutions and partnerships that allows our industry sector to decarbonize. We are focused on four key areas: fleet renewal, network operational efficiency, renewable energy transition and advanced technology. Boeing Chief Sustainability Officer Chris Raymond provides more details on our approach on [Pages 7–10](#). Renewable energy in particular plays a critical role and can include sustainable aviation fuels, electric-powered battery propulsion and green hydrogen. Boeing is working to advance the development of all three of them.

## SUSTAINABLE AVIATION FUELS

Boeing has pioneered the use of sustainable aviation fuels, which offer the most immediate and significant potential to decarbonize commercial and military aviation over the next 30 years. The company has partnered with airlines, industry, government and research institutions to conduct test flights, gain approval for commercial use, create regional supplies and reduce cost. In 2021, Boeing committed that its commercial airplanes will be capable of and certified to fly on 100% sustainable aviation fuels by 2030.

## ELECTRIC-POWERED AIRCRAFT

Electric airplanes offer another opportunity to reduce emissions when their batteries are charged with clean and renewable sources. Boeing’s work in this space includes Wisk, an urban mobility joint venture with partner Kitty Hawk. Wisk is developing electric vertical

takeoff and landing aircraft and targeting certification in the latter half of this decade. Boeing continues to research and invest in electrification technologies to accelerate them to market.

## HYDROGEN-POWERED AIRCRAFT

Incorporating hydrogen as a fuel in a safe and practical way will take time and considerable investment. The aviation industry, working with research institutions and the energy sector, needs to develop the propulsion technology, integrated fuel system and supporting infrastructure for production, storage, handling and delivery of green hydrogen. If these technological and commercial challenges can be overcome to produce and fly on green hydrogen, those aircraft have the potential to fly without in-flight carbon emissions.

## Aviation Climate Strategy

Boeing’s commitment to safer and sustainable air travel supports aviation’s global climate strategy — starting with carbon neutral growth from 2020 onward and reducing emissions to half of what they were in 2005 by 2050. Each year, we update our industry forecast in the Commercial Market Outlook (CMO) to factor the effects of current business conditions and developments into our analysis of the long-term industry drivers, including climate change related effects, and impacts to air travel.

## Updating and Replacing Fleets to Reduce Fuel Use and Emissions

Airlines have invested more than \$1 trillion since 2009 on over 12,000 new airplanes. Boeing’s latest generation reduces fuel use and emissions by 15%-25%. Improvements come from lighter-weight materials, advanced engine development and innovations such as natural laminar flow that reduces drag. Each airplane also improves upon reliability and maintenance requirements, enabling greater utilization and overall resource productivity.



“Aviation flew 4.5 billion people and nearly \$7 trillion in goods in 2019. We’re advancing multiple efforts now to address the urgent challenge of climate change so the world can continue to enjoy bringing people, cultures and trade together.”

**Sheila Remes, Vice President,  
Environmental Sustainability**



Boeing joint venture Wisk, flight-testing Cora electric air taxi.

✈ See details from Chief Sustainability Officer Chris Raymond on how Boeing is reimagining aerospace on [Page 7](#).



## SPOTLIGHT: ecoDemonstrator

### Boeing Uses a Flying Laboratory to Test Industry-Changing Technologies

Launched in 2010, Boeing's ecoDemonstrator program accelerates innovation by taking promising technologies out of the lab and testing them in the air to solve real-world challenges for airlines, passengers and the environment.

The ecoDemonstrator is a flying test bed to evaluate new features and technologies that can help improve safety, increase efficiency, enhance the passenger experience and minimize environmental impact.

Collaboration with industry partners is a key component of the ecoDemonstrator program. Etihad Airways served as Boeing's partner for the 2020 program, which used one of the airline's new 787-10 Dreamliners to test various technologies. See the graphic below for key testing programs that were included in 2020.

In addition to using sustainable aviation fuels and testing emissions-reduction technologies, Boeing purchased verified offsets to cover a portion of ecoDemonstrator emissions in 2020.

## KEY TEST PROGRAMS IN 2020



**Less airframe noise:** Performed flight tests with more than 200 microphones attached to the airplane and nearly 1,000 on the ground to improve noise prediction capabilities, validate ways to reduce noise and inform future quiet aircraft designs



**Quieter landing gear:** Tested nose and main landing gear modified by Safran Landing Systems to reduce noise

**Cabin sanitation technology:** Tested a handheld ultraviolet light wand and antimicrobial coating to help sanitize airplane cabins and flight decks



**En route airspace efficiency:** Conducted two test flights using digital communications that simultaneously connected pilots, air traffic controllers and airline operations centers to enhance safety, optimize routing and reduce emissions



**Sustainable aviation fuel:** Used a blend of up to 50% sustainable aviation fuel on every ecoDemonstrator flight

**Efficient arrival:** Tested a timed-arrival management tool as part of an airspace efficiency project to further reduce emissions

### Advancing Innovation

Boeing continues to advance aerospace technology to address the most pressing needs of our customers. We encourage our employees to pioneer new ways of thinking and challenge each of our team members to bring forward their ideas.

### PATENTS BY THE NUMBERS

In 2020 Boeing  
Was Granted

**6,275**

Patents

A Total of

**57,178**

Patents

(in the past 70 years)

### Data Drives Sustainability

The pursuit of digital innovation underpins everything we do. Our data scientists can spot patterns in performance data that enable our defense customers to operate more efficiently with a smaller carbon footprint. For C-17 operators, Boeing developed systems that can help define the optimal amount of fuel to carry, greatly minimizing wasteful fuel burn for any given mission.

Boeing has also designed upgraded components that help make the C-17 more efficient, saving thousands of pounds of fuel each year. Boeing data scientists mine data and identify worn components that burn an excessive amount of fuel, even when they are not driving a fault message, helping ensure our customers are operating in the most effective manner and with a strong focus on environmental stewardship.



Royal Australian Air Force Flight Lieutenant Sam Stephens tests Boeing's augmented training operations and maintenance solution, which combines mixed reality with real-time, subject matter expert support.

“Digital is at the heart of everything we do in service to our commercial and government customers. Our digital solutions combine data analysis and engineering know-how to strengthen operational efficiency for customers, operators, technicians and maintainers around the world and throughout our products’ life cycle.”

**Ted Colbert, President and CEO,  
Boeing Global Services**

# OPERATIONS

## Responsible and Resilient Operations

It's not just what we do — it's also how we do it. We operate sustainably and engage transparently on behalf of our customers and stakeholders. At Boeing, we're working to drive sustainability through all aspects of our business and striving for operations that lead to a better tomorrow. Across our manufacturing sites, offices and supply chain, we focus on environmental performance, responsible business practices, ethical conduct and information protection.

## Sustainability Goal

### SUSTAINABLE OPERATIONS

Maintain a net-zero future for Boeing operations through conservation and renewable energy; partner with the supply chain for responsible business practices

### U.N. SUSTAINABLE DEVELOPMENT GOALS



Left to right: Boeing employees Rachel Jones, Megan Thomas and Miles Parker work on the first F-15EX advanced fighter jet for the U.S. Air Force in St. Louis.



# Addressing Climate Change

Climate change is among the topics included in our enterprise risk management. Climate risks and opportunities inform our strategy, as evidenced by our commitments and actions in products and operations. Given the strength of our strategy, investments and abatement practices, we have not determined climate change to be financially material. Due to this, we have not calculated the fiscal implications or costs in this report. More information — including identification of risks and opportunities and discussion of the mechanisms Boeing uses to manage risks and realize opportunities — is included in our annual [CDP report](#). Information about

oversight, assessment and management of climate-related risks and opportunities is provided on [Page 21](#) of this report.

To achieve our goals related to the climate and greenhouse gases (GHG), we actively monitor emissions, fuel use and energy efficiency. We have set short- and long-term targets for performance in each of these areas. As part of Boeing's robust business continuity program, we also monitor the length and severity of business interruptions. The scope of monitoring includes damaging weather, natural disasters, pandemics and public health crises. It helps us understand how to increase resiliency in light of a changing climate.



Boeing achieved net-zero emissions at manufacturing and worksites in 2020 by expanding conservation and renewable energy use, while securing responsible offsets for the remaining greenhouse gas emissions. This is the Wild Horse facility in Washington that powers facilities in the state.

## Net-Zero at Worksites

Boeing achieved net-zero carbon emissions at manufacturing and worksites and in business travel in 2020 by expanding conservation and renewable energy use, while securing responsible offsets for the remaining greenhouse gas emissions.

Since 2008, Boeing has voluntarily and transparently reported greenhouse gas emissions from our operations in annual CDP (formerly Carbon Disclosure Project) disclosures. In 2020, CDP awarded Boeing a leadership-level grade of A-.

Boeing's greenhouse gas reduction strategy is managed within the Global Enterprise Sustainability organization. The management team tracks performance, procures energy, and initiates energy and emissions reduction projects across the company. This organization is well positioned to set strategic goals for greenhouse gas emissions reduction and energy conservation and to play an active role in achieving those goals.

Greenhouse gas emissions from operations are monitored on a monthly basis through the use of utility metering. The emissions factors for these energy sources are validated at least annually and updated when appropriate under the World Resources Institute GHG Protocol. The energy source data and emissions factors are audited as part of the third-party verification of the company's annual CDP disclosure, which contains a wealth of information about our emissions, reduction efforts and governance.



“The best way for us to earn continued trust is by working every day to put safety, quality and integrity first in everything we do, honoring our commitments one airplane, one pilot and one customer at a time.”

**Stan Deal, President and CEO,  
Boeing Commercial Airplanes**

# Conserving Resources

Boeing invests in sustainable operations to drive the highest levels of industrial performance at our manufacturing sites. As we share our goals for 2030, our 2025 targets will act as a milestone to guide our actions and progress along the way. All of our 2025 goals are absolute targets and are not indexed to production levels or growth. Our progress on these 2025 goals is shown in the table and reflects how our performance was affected by changes associated with occupancy and operations during COVID-19 in 2020.

Boeing established 2030 environmental performance goals by reviewing scientific recommendations, benchmarking global sustainability leaders, and evaluating our own progress and potential. The aspirational 2030 goals encompass more of our company and reach further than ever before.

The companywide goals shown are converted to site-level goals annually. Site performance is assessed throughout the year to monitor challenges and opportunities to share best practices. In 2020, we continued to invest in the conservation projects that advance our operational environmental goals.

Circularity also informs our approach. Boeing embraces circular principles, including monitoring waste in every area of the environment, seeking employee ideas on waste reduction, and innovating ways to eliminate or reuse waste. With new thinking, we can keep potential waste from entering the value stream or turn waste into viable products that Boeing or other businesses can use.

## Reducing Greenhouse Gas Emissions

Boeing strives to reduce operational greenhouse gas (GHG) emissions, both during times of growth and during times of challenge. In 2020, efficiency projects reduced GHG by 5,000 metric tons.

The company's goal to reduce GHG emissions 25% by 2025 is intended to drive emissions down over time, modeled after the Science Based Targets initiative methodology in effect when the goal was established in 2017.

### Operations Environmental Goals and Progress<sup>1</sup>

Performance Area	2025 Goals Versus 2017	Progress Toward 2025 Goals <sup>2</sup>	2030 Goals
 Greenhouse Gas Emissions	Reduce emissions by 25%	<b>Net-zero<sup>3</sup> (absolute reduction of 14%)</b>	<ul style="list-style-type: none"> <li>• Net-zero emissions</li> <li>• 55% GHG reduction from 2017</li> <li>• 100% renewable electricity</li> </ul>
 Energy	Reduce energy consumption by 10%	<b>12% reduction</b>	10% energy-intensity reduction from 2025
 Water	Reduce water withdrawal by 20%	<b>23% reduction</b>	5% reduction from 2025
 Waste	Reduce solid waste to landfill by 20% and hazardous waste by 5%	<ul style="list-style-type: none"> <li>• <b>44% reduction in solid waste</b></li> <li>• <b>34% reduction in hazardous waste</b></li> </ul>	<ul style="list-style-type: none"> <li>• 30% reduction in waste produced from 2025</li> <li>• Over 90% diversion from landfill or incineration</li> <li>• Zero waste where applicable at major sites</li> <li>• 5% hazardous waste reduction from 2025</li> </ul>

1. 2025 goals were set based on data from Core Metric Sites, which represent the majority (70%) of Boeing's operations.

2. Operational goals shown are absolute targets and not indexed to production levels or growth. 2020 performance was affected by changes associated with occupancy and operations during COVID-19. The targets were established against a 2017 baseline, and the 2025 goals will act as a milestone to guide actions and progress to the 2030 goals.

3. The net-zero achievement covered Scope 1 and Scope 2 emissions for all sites within the company's operational control as well as Scope 3 – Business Travel.

## Conserving Resources (continued)

In 2020, renewable energy accounted for 9% of Boeing's total energy and 19% of total electricity. Approximately 37% of total energy came from the power grid. Conservation and efficiency projects completed in 2020 resulted in 65,000 metric million British thermal units (69 terajoules) of energy savings. (See energy use details on [Page 72](#) in the Appendix.)

### Water: A Vital Resource

Boeing sets rigorous water use reduction targets at our manufacturing sites to preserve this natural resource for the environment and our communities.

Boeing's water is sourced from local public utilities and company generation. This sourced water supports manufacturing, sanitation, drinking water, cooling and irrigation across the company. The majority of our water is from public water supply systems, and most measurement of water consumption is from water system revenue-grade meters. (See water withdrawal data on [Page 72](#) in the Appendix.)

Water that is used within our facilities is discharged to public sanitary sewer systems. In some cases, Boeing pre-treats wastewater before discharging it to public sanitary sewer systems, in compliance with regulatory requirements. Boeing does not set voluntary effluent discharge standards beyond those set by regulations.



In addition to setting rigorous water use reduction targets within our facilities, Boeing is also dedicated to keeping community waterways healthy. The Duwamish Waterway shoreline restoration in Seattle has improved local ecosystems.

### Working to Conserve Water

Boeing implements efficiencies, best practices and new technologies to reduce water use and identifies alternatives for water-intensive processes. We monitor irregularities that may require action and created a Conservation Best Practice program to minimize on-site water use. Boeing uses many of the water management techniques endorsed by the U.S. Environmental Protection Agency in this program.

Boeing regularly reviews industry best practices and uses the International Organization for Standardization (ISO) 14001 standard to target continuous improvement opportunities, enhance environmental performance, meet compliance obligations and achieve reduction goals.

Boeing's environmental strategy is guided by a comprehensive review and assessment of the most significant environmental challenges and risks facing the company. Our environmental priorities, including water management, are set with internal and external stakeholders. The analysis includes direct input and perspectives from diverse stakeholders, including customers, nongovernmental organizations and company leadership. This information helps Boeing identify and update our understanding of current and emerging sustainability issues critical to the company and our stakeholders. It also informs our next-generation environmental strategy and targets.



“Conservation behaviors can have a ripple effect from one employee to another. That’s why it’s so important to take visible actions to ‘walk the conservation talk’ every single day. By modeling sustainable behaviors, engaged employees are influencing efficient resource use.”

**Crystal Frost, Conservation and Sustainable Behaviors Manager, Global Enterprise Sustainability**

# Reducing Waste

## Investment Recovery and Reclamation Teams

Boeing has dedicated internal teams to prevent waste from going to the landfill. Our reclamation team works to capture and collect materials across the company, while our investment recovery team repurposes materials, facilitates donations and sells scrap materials. In 2020, Boeing sent 16 million kilograms (36 million pounds) of scrap metal — from machining and milling, excess wires, and spent tools and equipment — to reclamation for future use in other products.

## Packaging Team

Our packaging team assesses opportunities to return or reuse packaging for parts and materials. Packaging engineers have developed standards for reusing containers with our suppliers. Our employees also develop processes to reuse and repurpose incoming packing materials, helping to reduce waste and cost.

## Reducing Waste Across Operations

Boeing is making strides to protect the land, water and air in our communities by reducing waste from worksites and our supply chain. Waste streams are as complex as our facilities, which range from office space to part fabrication to assembly of aircraft and space vehicles.

Solid waste includes material that has been discarded or abandoned or that is no longer useful or usable and has been designated for removal. Items that are reused or reclaimed are excluded from solid waste. Boeing generates nonhazardous solid waste through a number of activities:

- Manufacturing, production and design of products
- Packaging from materials received at facilities
- On-site facility maintenance activities
- Employee-generated office waste
- Food-related waste (cafeterias, employee lunches and vended products)
- Construction projects

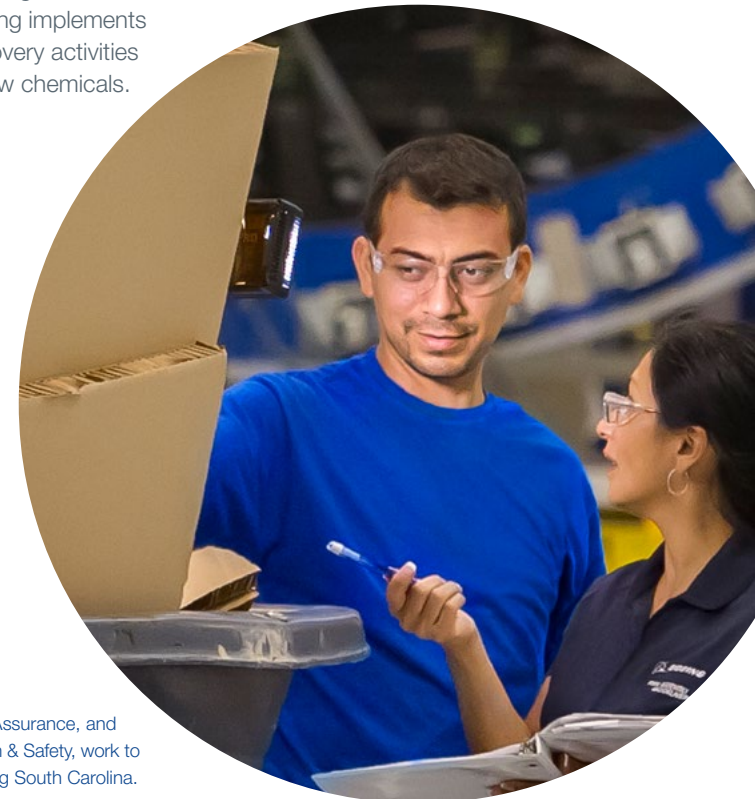
Boeing generates hazardous waste primarily from a variety of research, manufacturing and facilities maintenance processes. Hazardous waste excludes materials that can be reused (such as used oil or cloth wipes) and common waste streams, known as universal waste. Because of the variability of waste streams, we use a variety of methods to manage the waste.

## Avoiding Hazardous Waste

Hazardous waste may be recycled upstream or downstream, as on-site or off-site reclamation and avoided generation through processes that extend useful life of consumable chemicals to avoid hazardous waste.

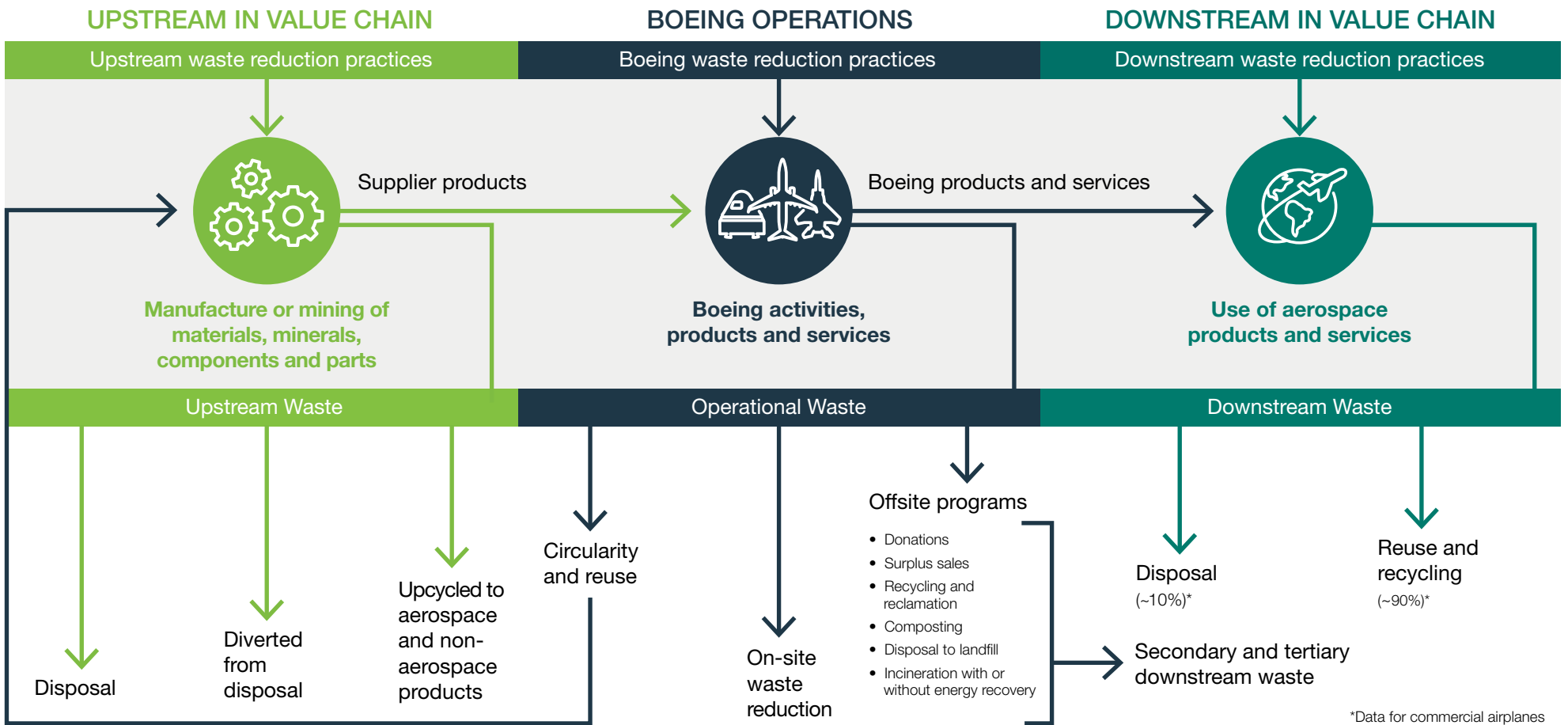
- Upstream activities prevent or reduce the amount of hazardous waste generated through extending system life through contaminant removal.
- Downstream activities occur after hazardous waste has been generated from site operations. Boeing implements several recycling and recovery activities to reduce the need for new chemicals.

Generally, third-party vendors handle transport and disposal of Boeing waste. The company contracts with vendors who provide waste-to-landfill, waste-to-energy, recycling and composting services. Vendors provide disposal data, and in the absence of weight-based data, Boeing calculates weight using a parametric approach. (See an overview of the waste process flow on the following page and waste generation and disposal data on [Page 73](#) in the Appendix.)



Osmin Rodriguez Romero, Quality Assurance, and Hope Gonzalez, Environment, Health & Safety, work to increase recycling volumes at Boeing South Carolina.

# Waste Process Flow



\*Data for commercial airplanes

# Environmental Compliance and Biodiversity

## Strong Commitment to Environmental Compliance

Boeing maintains a commitment to regulatory compliance as a fundamental element of our [environmental policy](#). When the rare noncompliance incident is identified, Boeing takes the issue seriously by applying root cause analysis, implementing corrective actions and sharing process improvements as we work to continually improve our commitment to environmental excellence.

Boeing had no reportable spills in 2020. The company paid one environmental penalty in excess of \$10,000, in connection with alleged noncompliance with technical waste management requirements at the Cecil Field facility in Jacksonville, Florida. There was no allegation of any waste release to the environment. The matter was resolved after Boeing submitted evidence of completed corrective actions and paid a \$17,410 penalty.

## Biodiversity Boosts Ecosystems

Boeing has thousands of acres of habitats across five locations that are being protected or undergoing restoration. Each habitat is actively managed and maintained by site personnel, outside nonprofit organizations or contract biologists. For some locations, additional agreements and monitoring are in place to ensure all legal, contractual and certification requirements are met.

Each habitat is certified by the Wildlife Habitat Council (WHC), with three certified at the Gold level. The WHC's certification program is the only voluntary sustainability standard designed for broad-based biodiversity enhancement and conservation education activities on corporate landholdings. Recertification is required every two years.

### WHC-Certified Habitats

Location	Size
Boeing Plant 2 in Seattle, WA	5 acres of marine habitat
Boeing South Carolina Keystone/Fairlawn Project in North Charleston, SC	3,923 acres, including 2,025 acres of wetland
Emery Landfill in Wichita, KS	56.5 acres, including 35 acres of grassland
Pollinator Prairie in Olathe, KS	1.5 acres of pollinator gardens
Santa Susana in Canoga Park, CA	2,400 acres of diverse habitats

Boeing partners with a number of nongovernmental and governmental organizations and third parties that vary by location, depending on project needs.



## SPOTLIGHT

Katie Moxley's team of environmental experts uses innovative approaches in cleanup efforts to ensure the health of people and the environment.

“The best solutions are found when our stakeholders work together. As a mother, I care about the environment and the legacy we leave for our children and their children.”

**Katie Moxley, Manager, Environmental Remediation, Global Policy and Chemical Compliance**



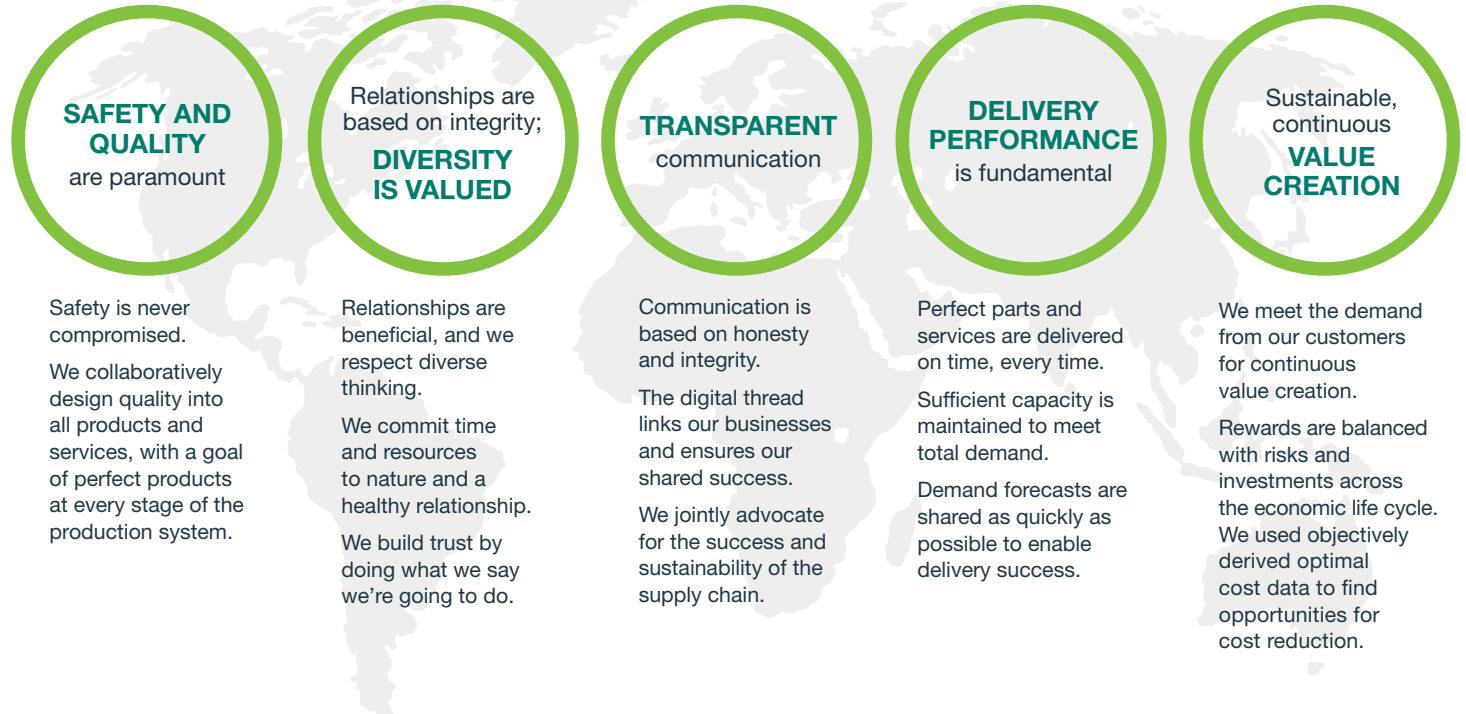
“Sustainability is an essential part of all our jobs. We see this as we volunteer in our communities, determine materials for new designs, and recognize how to efficiently use energy and water to build and service airplanes.”

**Christin Datz, 2020 Environmental Champion, and Product Development Engineer, Boeing Commercial Airplanes**

# Responsible Supply Chain

In 2020, Boeing spent nearly \$48 billion with approximately 12,000 suppliers from 58 countries and all 50 U.S. states. We apply a core set of principles to our supply chain that encourages collaborative engagement and delivers value to our customers. These principles build on successes, feedback and lessons learned throughout the supply chain and set the stage for achieving first-time quality, on-time delivery and improved cost performance. They are rooted in our values.

## Supply Chain Principles



### SPOTLIGHT: Partnering With Suppliers on Sustainability

#### Women-Owned Businesses Help Boeing and Global Customers Meet Market Demand

Boeing is a founding member of WEConnect International, a nonprofit organization that identifies, educates, registers and certifies global women's business enterprises. Businesses must be at least 51% women-owned, as well as managed or controlled by one or more women, to be part of WEConnect. After the businesses certify

that they meet these high standards, they are connected with multinational corporate buyers.

This partnership is an excellent way for Boeing to find potential suppliers in international markets where we have sites, offset agreements and strategic campaigns.

Ultimately, it helps Boeing increase its global supply base in a way that addresses local economic impact needs and supports certified women-owned businesses.

Ngozi Oyewole, owner of Noxie Limited, a WEConnect International certified women-owned business, displays her company's personal protective equipment products in Nigeria.

Boeing also works to drive diversity, sustainability and ethical business conduct throughout its supply chain.

**Diversity:** We are committed to a diverse and inclusive supply chain to promote economic growth across communities. In 2020, Boeing spent over \$5 billion with small, diverse suppliers and continues to seek partnership opportunities.

**Sustainability:** In 2020, Boeing engaged with approximately 2,500 potential new suppliers to inspire, promote and support sustainability throughout our supply chain. Throughout the next year, the company will work to expand environmental and social standards within our supply chain. We will continue to do business in a sustainable manner and create positive change in our global footprint.

**Ethical Supply Chain Business Conduct:** Boeing is committed to the highest standards of ethical business conduct. Our contractual relationships with third-party suppliers, including our consultants and contract labor, are designed to enforce our expectations for lawful, ethical and fair business practices. Boeing supply chain organizations are responsible for evaluating and establishing all new supplier relationships as well as providing oversight of the company's supplier base. We annually assess enterprise risks and develop a risk-based audit plan to support achievement of business and compliance objectives.



## SPOTLIGHT

### Supply Chain in Australia Embraces Indigenous Partners

In 2020, Boeing Defence Australia achieved \$10 million in accumulated Indigenous supply chain spend since 2012 as part of its growing relationship with Supply Nation, which connects companies with Indigenous suppliers like the Indigenous Defence & Infrastructure Consortium (iDiC). Boeing Defence Australia leaders say the significant growth is the result of Boeing's growing relationship with iDiC as well as the company's commitment to working with Indigenous-owned businesses and maximizing Australian industry content in its supply chain.

Pictured is Scott Carpendale, Vice President and Managing Director, Boeing Defence Australia (left), and Adam Goodes, CEO of iDiC.



"Boeing introduced a set of principles to meet supplier requests for greater transparency and more frequent, open and candid communication. The principles also reflect our ongoing commitment to strong business fundamentals of safety, first-time quality, continuous improvement, on-time delivery, affordability and operational excellence."

**William A. Ampofo II, Vice President, Supply Chain, Boeing Global Services, and Chair, Enterprise Supply Chain Operations Council**

**~5,600**

Total Small, Diverse Suppliers<sup>1</sup>

**\$5B+** Spent With Small, Diverse Suppliers

**~850**

Women Owned

**~600**

Minority Owned

**~500**

Veteran Owned

1. Total small, diverse supplier count represents 2020 data and is inclusive of women-owned, minority-owned and veteran-owned businesses, and some suppliers may fall into more than one subcategory.



# Data Privacy and Information Security

Boeing prioritizes security practices and product security engineering to protect networks, systems and information from cyberthreats and to enable authorized use. Boeing uses privacy controls to enable transparent, responsible and accountable processing of personal information.

## Cybersecurity Measures

We recognize the fast-changing nature of threats to cybersecurity. We employ a risk-based approach and have implemented mitigations off the network across our supply chain; with our partners and staff; and throughout our infrastructure, products and services. Boeing also works to ensure that our products are designed to anticipate, withstand, recover and adapt to cyberattacks.

## Information Security and Risk-Based Controls

We continuously strive to meet or exceed the industry's information cybersecurity best practices and implement risk-based controls to protect our clients' and our company's information and information systems. We have structured our formal cybersecurity program around the National Institute of Standards and Technology (NIST) Cybersecurity Framework, contractual requirements and other global standards. We leverage industry and government associations, third-party benchmarking, audits and threat intelligence feeds to ensure the effectiveness of our functions and proactively allocate our resources. Although there is no perfect solution to present and future threats, our approach demonstrates continued progress to protect our company assets, brand and reputation. Regardless of the advancements, we seek out opportunities to proactively discover and treat IT security risks every day.

## Protecting Privacy and Security

Boeing's Global Privacy Office enables management of and accountability for the privacy and security risks associated with the collection, use, protection, retention, disclosure and disposal of personal information. Boeing has been entrusted with protecting the personally identifiable information of many stakeholders, including current and former employees, partners, customers, job applicants and others worldwide.

Boeing's program is built upon a foundation of privacy principles. The company has mapped its requirements to the Generally Accepted Privacy Principles, U.S. Privacy Management Framework and the NIST Privacy Management Framework, as well as the principles found in the EU General Data Protection Regulation and the Asia-Pacific Economic Cooperation principles.

The pillars of Boeing's program include establishing a robust and comprehensive set of internal controls covering people, processes and technology. The program also encompasses oversight and engagement, including monitoring, incident management, engagement, and advocacy with regulators and legislatures. The company enhances its program with the implementation of risk and program management best practices.



“The safety of our products, services and workplace requires that we create and maintain a safe digital environment. That's why we work across our company, with customers, suppliers and employees, and with other partners to promote cybersafety, data privacy and cyber resilience.”

**Susan Doniz, Chief Information Officer and Senior Vice President, Information Technology & Data Analytics**

# COMMUNITIES

## Purposeful Partnerships With Communities

Our communities matter to us. We focus on global partnerships and programs that inspire our future through education, honor our heroes and strengthen our homes. Through purposeful investments, employee engagement and advocacy efforts, Boeing seeks to create value and help build better communities worldwide. Our charitable programs drive positive, lasting change in the communities where our employees and their families live and work, anchored by local employee engagement activities.

## Sustainability Goal

### COMMUNITY ENGAGEMENT

Build better, more equitable communities through corporate investments, employee engagement programs and advocacy efforts

### U.N. SUSTAINABLE DEVELOPMENT GOALS



Boeing volunteers in St. Louis shared FUTURE U kits with the supplies students needed to complete STEM experiments while they were homebound during the pandemic.

# Community Engagement by the Numbers



**267**

grants targeting STEM and workforce development programs in 2020



**\$4.2M**

donated to COVID-19 relief around the world in 2020



**5M+**

students reached through Boeing's hands-on STEM learning program FUTURE U



**\$100M+**

in charitable grants to 590 organizations in 51 countries — including \$14.2 million in support of veterans programs



**13,000+**

active partnerships with community-based organizations



**\$36M**

contributed to charitable causes by Boeing employees in 2020



**\$2B**

approximately in Boeing community investments over the last 10 years



**\$15.6M**

contributed to nonprofits supporting racial equity and social justice in 2020



“This year has been a challenging one for businesses and communities around the world, but Boeing remains committed to supporting the places we call home. Even during challenging times, it’s important that we continue to foster relationships in our community and invest in programs that move society forward. It is through our community partnerships that we will drive advances in racial equity, stop the spread of COVID-19, inspire the next generation of aerospace professionals, and create opportunities for veterans and their families.”

**Jennifer Lowe, Vice President, National Strategy & Engagement, Government Operations**



**31**

unique grants supporting environmental programs in 2020



**\$234M+**

community investments in 2020

✈ See the latest [Boeing Global Engagement Portfolio](#) for more information.

# Purposeful Partnerships

## Our Future: Tomorrow's Innovators

Boeing is committed to supporting students of all backgrounds in achieving their full potential. The company is engaged in partnerships with community organizations to advance racial equity, promote academic success and build pathways to economic stability. In 2020, Boeing provided funding for 267 charitable organizations working to advance STEM and workforce development programs. Though Boeing's signature

program FUTURE U and support of organizations like FIRST Robotics, Newton Rooms and Soaring with Your Dream, the company had helped introduce millions of students to the wonder of aerospace and technology. In May 2021, Boeing committed \$50 million to Virginia Tech Innovation Campus as the first foundational partner in this transformative investment that will help diversify the global technology industry and bolster the Washington, D.C., region as a global innovation hub.



Students work through a FUTURE U STEM design challenge. Through a partnership with Discovery Education, Boeing developed FUTURE U as an education tool for employees and educators to share their passion for aerospace with the next generation. FUTURE U offers free, open-access lessons, videos and interactive experiences for students. FUTURE U has reached more than 5 million students since its launch in 2019.

## Our Heroes: Veterans and Their Families

Boeing's goal is to build better lives for transitioning military service members, veterans and their families. We provide support for those from communities typically underrepresented in the military-veteran ecosystem and systematically disadvantaged by societal barriers. In 2020, Boeing invested more than \$14 million in support of veteran transition services and recovery and rehabilitation programs.

Additionally, Boeing has committed to a \$4.5 million, three-year partnership with the Institute for Veterans & Military Families to establish Future Force, a workforce training, recruitment and placement program for veterans.

## New Home, New Start

On Sept. 12, 2020, one day after the 19th anniversary of the 9/11 attacks, Sgt. Nathan Shumaker, a soldier who served in Afghanistan, received the keys to his new home in Hillsboro, Missouri, near St. Louis. The home was specially built for Shumaker and his family by Homes For Our Troops, a nonprofit that builds and donates homes to severely injured veterans. In 2019, The Boeing Charitable Trust made a \$3 million, three-year investment in Homes For Our Troops to support build projects across the United States.



FUTURE U provides hands-on, experiential learning tools to ignite excitement in STEM. During the pandemic, Boeing distributed FUTURE U kits at an event at McCluer South-Berkeley High School in Ferguson, Missouri, to help students learning remotely.



Boeing teammates Maria Passaseo (center) and Kim O'Rourke (right) present Claudia Bonilla Keller, Second Harvest Food Bank's chief mission officer, with a \$20,000 check on behalf of the Employees Community Fund. Through Employees Community Fund grants, Boeing teammates collectively contributed more than \$1.3 million to support COVID-19 response in their communities.

## Our Homes: Dynamic Communities

Boeing works to apply sustainable solutions to local challenges in order to strengthen the communities where our employees and their families live and work. The company has flexibility to respond to local community needs and places a special emphasis on partnerships that advance economic mobility for communities of color, promote community well-being, and increase resources and support to break the cycle of incarceration. In 2020, Boeing provided support for more than 13,000 community

partners worldwide, which includes over \$6 million through 78 grants that were invested to support more than 30,000 marginalized community members, young adults, and veterans and their families in obtaining high-demand employment or skills training.

### Boeing and Allen University Partner to Establish the Boeing Institute on Civility

In 2020, Boeing and Allen University announced a new \$1.5 million partnership to establish the Boeing Institute on Civility at

Allen University. The institute will be a national hub for teaching and provide programming aimed at advancing civil discourse in America and across the globe.

### INSTITUTE WILL HONOR VICTIMS OF RACIAL VIOLENCE

Boeing's funding will support the renovation of the historic Good Samaritan-Waverly Hospital, which will house the institute once construction is complete. The institute will include the South Carolina African American Hall of Fame as well as a memorial to honor

the nine victims of the 2015 Mother Emanuel AME Church tragedy in Charleston, South Carolina.

### ADVANCING RACIAL EQUITY

This investment builds on Boeing's commitment to advancing racial equity and social justice in society. Over the last five years, Boeing has invested more than \$17 million in organizations to expand access and address inequities for communities of color across South Carolina.



Tiffin Evans, wife of Boeing employee Scott Evans, picks up trash at a community cleanup event in Kinloch, Missouri — the oldest Black community to be incorporated in the state. Even through the COVID-19 pandemic, Boeing teammates volunteered an impressive 250,000 hours in their communities.



The Boeing Institute on Civility at Allen University will become a powerful catalyst for helping to promote thoughtful civil discourse. Empowering students and the broader community to debate public issues with civility and respect is an important step on the journey to developing lasting societal solutions.

# Engaging Around the Globe

## STEM Across Europe

A multiyear investment from Boeing will establish Newton Rooms in nine countries: Germany, Netherlands, Poland, France, Italy, Spain, Belgium, Turkey and United Kingdom. Newton Rooms offer high-quality STEM learning through real-world aviation concepts such as space, biofuels, and advanced materials and manufacturing to communities around Europe.

In March 2020, a Mobile Newton Room opened in Neu-Isenburg, Germany, near Boeing Global Services facilities in Frankfurt. In addition to completing the training module “Up in the Air With Numbers,” students also toured the facilities and interacted with Boeing employees. Newton Rooms have also opened in Lugo, Spain and Łódź, Poland.



Two students experience real-world aviation concepts at a STEM facility in Neu-Isenburg, Germany.

## Climate Education in Asia

In South Korea, Boeing partnered with the Korea Green Foundation to hold a series of virtual courses on climate change for students in grades 5 through 8. Throughout the month, a total of 50 students learned about the impacts of climate change and what they can do to help educate others and minimize the impact.

Students also made terrariums out of items they had at home. Participants were chosen for the virtual event through an online essay competition explaining why combating climate change is important to them. Boeing has partnered with the Korea Green Foundation for more than a decade.



We partnered with the Korea Green Foundation for elementary-school virtual courses on climate change in Seoul.



“Boeing’s Global Sustainability Policy & Partnerships team is a catalyst for collaboration between industry, government, academia and civil society toward a common goal: sustainable aerospace. At Boeing, we partner with internal and external stakeholders to accelerate our environmental stewardship, social progress and values-based governance efforts by identifying and responding to global sustainability trends, informing emerging regulations and creating innovative partnerships for sustainable aviation growth.”

**Valentina Vecchio, Europe (Brussels) Regional Lead, Global Sustainability Policy & Partnerships**

### Always on Call: Supporting Global Customers' Pandemic Response

- More than 21 million pounds (90,700 kilograms) of medical equipment delivered worldwide
- 12 countries supported by missions
- Hundreds of flight-hours achieved
- Nearly 500 people repatriated

In 2020, nations came together and rallied against a common enemy, COVID-19, with many activating their defense forces to combat the virus. Inherent in most critical humanitarian missions is the desire to drive efficiency while maintaining safety and quality standards, and the global COVID-19 missions were no exception.

### BOEING STEPS UP

As COVID-19 rapidly spread, Boeing's people, products and customers stepped up to aid in relief efforts. In particular, the Boeing C-17 Globemaster III and KC-767 tanker took center stage due, in part, to the aircrafts' load capacity, ability to accommodate multiple configurations and service support teams in place to ensure mission readiness.

From the Congo jungle to Middle East deserts, the C-17 and KC-767 delivered critical medical supplies and repatriated hundreds of people as borders began to close. Numerous aircraft configurations were adopted to accommodate pallets of supplies, bio-containment stretchers, seats to transport up to 200 people and even temporary hospital facilities in some instances.

With hundreds of flight-hours being recorded within a matter of days, Boeing Global Services teams were on call to ensure the aircraft were ready to meet the needs of a nation at a moment's notice. Boeing teams advised customers on how best to optimize their fleets based on mission requirements and operate in various climates. In addition, technical support on cabin air filtration and post-flight aircraft decontamination procedures were provided by Boeing Commercial Airplanes.

### DEFENSE FORCE ALIGNMENT

The pandemic underscores the need for interoperability and alignment between nations' defense forces. Sustainable solutions to address operational cost of defense platforms, optimization of fleets and the ability to operate in extreme climates are critical to national security and overall defense posture.



Italian nationals exit a KC-767A tanker following a repatriation mission.



An Indian Air Force C-17 carries an oxygen truck during the recent COVID-19 crisis.



Medical equipment is unloaded at Italy's Pratica di Mare Air Base.

# APPENDIX

We self-declare that this Sustainability Report has been prepared in accordance with the GRI Standards: Core Option. The GRI Index below indicates the location of each GRI disclosure within this Sustainability Report, on our external website or other Boeing reports, or it states the information directly. In the SASB Index and TCFD Index, we have aligned our disclosures with the recommended disclosures and metrics in the SASB Aerospace & Defense Standard and the TCFD framework. We will continue to evaluate our disclosure approach moving forward to ensure we are providing relevant information in an efficient and effective manner.

All data within Key ESG Data, GRI, SASB and TCFD indexes is for the period from Jan. 1, 2020, through Dec. 31, 2020, or as of Dec. 31, 2020, unless otherwise noted.

## INDEXES

- [Global Reporting Initiative \(GRI\)](#)
- [Sustainability Accounting Standards Board \(SASB\)](#)
- [Task Force on Climate-related Financial Disclosures \(TCFD\)](#)

## UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (U.N. SDGs)

## AWARDS AND RECOGNITION

## MEMBERSHIPS AND PARTNERSHIPS

## KEY ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG) DATA

## FORWARD-LOOKING STATEMENTS





# GRI Index

SR = 2021 Sustainability Report  
 AR = 2020 Annual Report  
 PR = 2021 Proxy Report

Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 102: GENERAL DISCLOSURES</b>			
102-1	Name of the organization		The Boeing Company <a href="#">AR Form 10-K</a> Cover Page
102-2	Activities, brands, products and services	Company Profile, <a href="#">Page 13</a>	<a href="#">AR Form 10-K</a> Pages 1-6 <a href="#">AR Pages</a> 154-163 <a href="#">Boeing Overview</a>
102-3	Location of headquarters		Chicago, Illinois <a href="#">AR Form 10-K</a> Cover Page
102-4	Location of operations	Company Profile, <a href="#">Page 13</a>	<a href="#">State Impact</a> <a href="#">Global Impact</a> <a href="#">Boeing International</a> <a href="#">AR Form 10-K</a> Pages 20-21
102-5	Ownership and legal form		<a href="#">AR Form 10-K</a> Cover Page
102-6	Markets served	Company Profile, <a href="#">Page 13</a>	<a href="#">Boeing Market Outlook</a>
102-7	Scale of the organization	Company Profile, <a href="#">Page 13</a>	<a href="#">Employment Data</a> <a href="#">AR Form 10-K</a> Pages 20, 35, 41, 62, 64, 126 <a href="#">PR</a> Page 64
102-8	Information on employees and other workers	Global Diversity, Equity and Inclusion, <a href="#">Pages 27-29</a> ; Employee and Labor Relations, <a href="#">Page 32</a>	<a href="#">AR Form 10-K</a> Pages 2-3 <a href="#">Boeing 2021 Global Equity, Diversity &amp; Inclusion Report</a>
102-9	Supply chain	Responsible Supply Chain, <a href="#">Pages 47-48</a>	<a href="#">State Impact</a> <a href="#">Global Impact</a>
102-10	Significant changes to the organization and its supply chain		<a href="#">PR</a> Page 3
102-11	Precautionary Principle or approach		Boeing has a robust enterprise risk management (ERM) process, which is described in the <a href="#">Governance and Risk Management</a> section. While the Precautionary Principle is not specifically applied as part of our ERM, we do consider environmental protection as a fundamental part of our approach to business. For example, the Due Diligence program conducts reviews designed to reduce risks and to facilitate efficient environment, health and safety integration of acquired properties and business operations. Environmental considerations are also included in our life-cycle assessments of products and projects. Life-cycle assessments are discussed further in the <a href="#">Products &amp; Services</a> section of the SR.

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 102: GENERAL DISCLOSURES (CONTINUED)</b>			
102-12	External initiatives	U.N. SDGs, <a href="#">Pages 69-70</a> ; Awards and Recognition/Memberships and Partnerships, <a href="#">Page 71</a>	<a href="#">2021 Boeing Global Engagement Portfolio</a> Pages 46-48
102-13	Membership of associations	Awards and Recognition/Memberships and Partnerships, <a href="#">Page 71</a>	<a href="#">Trade Association Memberships</a>
102-14	Statement from senior decision-maker	CEO Letter, <a href="#">Pages 3-4</a>	
102-15	Key impacts, risks and opportunities	Sustainability Approach, <a href="#">Page 14</a> ; Sustainability Priorities, <a href="#">Pages 15-16</a>	
102-16	Values, principles, standards and norms of behavior	Ethical and Compliant Business, <a href="#">Pages 18-20</a>	<a href="#">Our Values Ethics and Compliance</a>
102-17	Mechanisms for advice and concerns about ethics	Ethical and Compliant Business, <a href="#">Pages 18-20</a>	<a href="#">Ethical Business Conduct Guidelines</a>
102-18	Governance structure	Sustainability Approach, <a href="#">Page 14</a> ; Governance and Risk Management, <a href="#">Pages 21-22</a> ; Aerospace Safety and Quality, <a href="#">Page 34</a>	<a href="#">PR</a> Pages 19-22
102-20	Executive-level responsibility for economic, environmental and social topics	Sustainability Approach, <a href="#">Page 14</a>	
102-22	Composition of the highest governance body and its committees		<a href="#">PR</a> Pages 8-9, 10-16, 19
102-23	Chair of the highest governance body		The Board chair is not an executive officer of the company. <a href="#">PR</a> Page 17
102-24	Nominating and selecting the highest governance body		<a href="#">PR</a> Pages 9-10, 17
102-25	Conflicts of interest		<a href="#">PR</a> Pages 27, 30-31
102-28	Evaluating the highest governance body's performance		<a href="#">PR</a> Page 22
102-29	Identifying and managing economic, environmental and social impacts	Governance and Risk Management, <a href="#">Pages 21-22</a>	<a href="#">PR</a> Pages 21-22
102-30	Effectiveness of risk management processes	Governance and Risk Management, <a href="#">Pages 21-22</a>	<a href="#">PR</a> Pages 21-22

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 102: GENERAL DISCLOSURES (CONTINUED)</b>			
102-31	Review of economic, environmental and social topics	Governance and Risk Management, <a href="#">Pages 21-22</a>	<a href="#">PR</a> Pages 21-22
102-33	Communicating critical concerns (to highest governing body)	Ethical and Compliant Business, <a href="#">Pages 18-20</a>	<a href="#">Ethical Business Conduct Guidelines</a> <a href="#">PR</a> Page 23
102-34	Nature and total number of critical concerns		
102-35	Remuneration policies (for the highest governance body and senior executives for the following types of remuneration)		<a href="#">PR</a> Pages 33-49
102-37	Stakeholders' involvement in remuneration		<a href="#">PR</a> Pages 18, 32
102-38	Annual total compensation ratio		<a href="#">PR</a> Page 60
102-40	List of stakeholder groups	Sustainability Priorities, <a href="#">Pages 15-16</a>	
102-41	Collective bargaining agreements	Employee and Labor Relations, <a href="#">Page 32</a>	<a href="#">AR Form 10-K</a> Pages 3, 20
102-42	Identifying and selecting stakeholders	Sustainability Priorities, <a href="#">Pages 15-16</a>	
102-43	Approach to stakeholder engagement	Sustainability Priorities, <a href="#">Pages 15-16</a>	<a href="#">PR</a> Page 18
102-44	Key topics and concerns raised	Sustainability Priorities, <a href="#">Pages 15-16</a>	<a href="#">PR</a> Page 18
102-45	Entities included in the consolidated financial statements		The Boeing Company and Subsidiaries Exhibit 21 to <a href="#">AR Form 10-K</a>
102-46	Defining report content and topic boundaries	Sustainability Priorities, <a href="#">Pages 15-16</a>	
102-47	List of material topics	Sustainability Priorities, <a href="#">Pages 15-16</a>	
102-48	Restatements of information		None. This is Boeing's first Sustainability Report. Previously, Boeing published a family of reports that includes the <a href="#">2020 Global Environment Report</a> , <a href="#">2020 Global Environment Report Companion Summary</a> and <a href="#">2021 Boeing Global Engagement Portfolio</a> .

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 102: GENERAL DISCLOSURES (CONTINUED)</b>			
102-49	Changes in reporting		None. This is Boeing's first Sustainability Report. Previously, Boeing published a family of reports that includes the <a href="#">2020 Global Environment Report</a> , <a href="#">2020 Global Environment Report Companion Summary</a> and <a href="#">2021 Boeing Global Engagement Portfolio</a> .
102-50	Reporting period		1/1/2020-12/31/2020, unless otherwise noted
102-51	Date of most recent report		Not applicable. This is Boeing's first Sustainability Report. Previously, Boeing published a family of reports that includes the <a href="#">2020 Global Environment Report</a> , <a href="#">2020 Global Environment Report Companion Summary</a> and <a href="#">2021 Boeing Global Engagement Portfolio</a> .
102-52	Reporting cycle		Annual
102-53	Contact point for questions regarding the report		Boeing Communications Email: <a href="mailto:media@boeing.com">media@boeing.com</a> Phone: 312-544-2000 Mailing Address: 100 N. Riverside Plaza, Chicago, IL 60606
102-54	Claims of reporting in accordance with the GRI Standards	Appendix, <a href="#">Page 56</a>	The Boeing Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core Option.
102-55	GRI content index	GRI Index, <a href="#">Pages 57-64</a>	
102-56	External assurance		Select environmental data have been externally verified by DNV GL. <a href="#">See statement.</a>
<b>GRI 103 – MANAGEMENT APPROACH</b>			
103-1	Explanation of the material topic and its boundary	Sustainability Priorities, <a href="#">Pages 15-16</a>	
103-2	The management approach and its components	Sustainability Priorities, <a href="#">Pages 15-16</a>	
103-3	Evaluation of the management approach	Sustainability Priorities, <a href="#">Pages 15-16</a>	

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 201: ECONOMIC PERFORMANCE</b>			
201-1	Direct economic value generated and distributed	Company Profile, <a href="#">Page 13</a>	<a href="#">AR</a> Page 16
201-2	Financial implications and other risks and opportunities due to climate change	Addressing Climate Change, <a href="#">Page 41</a>	CDP climate report <sup>1</sup> C2.3a, C2.4a
201-3	Defined benefit plan obligations and other retirement plans		<a href="#">AR Form 10-K</a> Pages 106-115
<b>GRI 203: INDIRECT ECONOMIC IMPACTS</b>			
203-2	Significant indirect economic impacts	Purposeful Partnerships, <a href="#">Pages 52-53</a>	<a href="#">Community Engagement</a> <a href="#">2021 Boeing Global Engagement Portfolio</a>
<b>GRI 204: PROCUREMENT PRACTICES</b>			
204-1	Proportion of spending on local suppliers		96% of our suppliers are local to our significant locations of operations, and spend with these local suppliers comprised 85% of our supplier spend. Local suppliers are defined as domestic in relation to the location of operation, and significant locations of operation are defined as major operational areas as determined by square footage.
<b>GRI 205: ANTI-CORRUPTION</b>			
205-1	Operations assessed for risks related to corruption	Ethical and Compliant Business, <a href="#">Page 20</a>	<a href="#">Anti-Corruption</a>
205-2	Communication and training about anti-corruption policies and procedures	Ethical and Compliant Business, <a href="#">Page 20</a>	<a href="#">Anti-Corruption</a>
<b>GRI 301: MATERIALS</b>			
301-1	Materials used by weight or volume		<a href="#">AR Form 10-K</a> Page 5

1. Boeing participates annually in the CDP climate report. Our most recent response is available on our website [here](#) in accordance with the CDP reporting schedule.

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 302: ENERGY</b>			
302-1	Energy consumption within the organization	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C8.2a
302-3	Energy intensity	Key ESG Data, <a href="#">Page 72</a>	
302-4	Reduction of energy consumption	Conserving Resources, <a href="#">Pages 42-43</a>	
<b>GRI 303: WATER</b>			
303-1	Interactions with water as a shared resource	Conserving Resources, <a href="#">Page 43</a> ; Key ESG Data, <a href="#">Page 72</a>	
303-2	Management of water discharge-related impacts	Conserving Resources, <a href="#">Page 43</a>	
303-3	Water withdrawal	Key ESG Data, <a href="#">Page 72</a>	
<b>GRI 304: BIODIVERSITY</b>			
304-3	Habitats protected or restored	Environmental Compliance and Biodiversity, <a href="#">Page 46</a>	
<b>GRI 305: EMISSIONS</b>			
305-1	Direct (Scope 1) GHG emissions	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C6.1
305-2	Energy indirect (Scope 2) GHG emissions	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C6.2
305-3	Other indirect (Scope 3) GHG emissions	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C6.5
305-4	GHG emissions intensity	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C6.10
305-5	Reduction of GHG emissions	Conserving Resources, <a href="#">Page 42</a>	
<b>GRI 306: WASTE</b>			
306-1	Waste generation and significant waste-related impacts	Reducing Waste, <a href="#">Pages 44-45</a>	
306-2	Management of significant waste-related impacts	Reducing Waste, <a href="#">Pages 44-45</a>	
306-5	Waste directed to disposal	Key ESG Data, <a href="#">Page 73</a>	

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 307: ENVIRONMENTAL COMPLIANCE</b>			
307-1	Noncompliance with environmental laws and regulations	Environmental Compliance and Biodiversity, <a href="#">Page 46</a> ; Key ESG Data, <a href="#">Page 73</a>	
<b>GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>			
308-1	New suppliers that were screened using environmental criteria		Boeing does not screen suppliers using environmental criteria.
<b>GRI 401: EMPLOYMENT</b>			
401-3	Parental leave	Professional Development, Education and Training, <a href="#">Pages 30-31</a>	<a href="#">Benefits</a>
<b>GRI 402: LABOR/MANAGEMENT RELATIONS</b>			
402-1	Minimum notice periods regarding operational changes		We provide advance notice in accordance with all applicable legal and/or contractual requirements in the different locations where we operate.
<b>GRI 403: OCCUPATIONAL HEALTH AND SAFETY</b>			
403-1	Occupational health and safety management system	Safety-First Culture, <a href="#">Pages 24-26</a>	
403-2	Hazard identification, risk assessment and incident investigation	Safety-First Culture, <a href="#">Pages 24-26</a>	
403-5	Worker training on occupational health and safety	Safety-First Culture, <a href="#">Pages 24-26</a>	
403-6	Promotion of worker health	Safety-First Culture, <a href="#">Pages 24-26</a> ; Professional Development, Education and Training, <a href="#">Pages 30-31</a>	
403-8	Workers covered by an occupational health and safety management system	Safety-First Culture, <a href="#">Pages 24-26</a>	
403-9	Work-related injuries	Safety-First Culture, <a href="#">Page 24</a>	
<b>GRI 404: TRAINING AND EDUCATION</b>			
404-2	Programs for upgrading employee skills and transition assistance programs	Professional Development, Education and Training, <a href="#">Pages 30-31</a> ; Employee and Labor Relations, <a href="#">Page 32</a>	

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Disclosure	Disclosure Title	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
<b>GRI 405: DIVERSITY AND EQUAL OPPORTUNITY</b>			
405-1	Diversity of governance bodies and employees	Global Equity, Diversity and Inclusion, <a href="#">Page 27</a> ; Governance and Risk Management, <a href="#">Page 21</a>	<a href="#">PR</a> Pages 8-9, 10-16 <a href="#">Boeing 2021 Global Equity, Diversity &amp; Inclusion Report</a>
<b>GRI 406: NONDISCRIMINATION</b>			
406-1	Incidents of discrimination and corrective actions taken	Global Equity, Diversity and Inclusion, <a href="#">Page 28</a>	<a href="#">Boeing 2021 Global Equity, Diversity &amp; Inclusion Report</a>
<b>GRI 407: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Employee and Labor Relations, <a href="#">Page 32</a> ; Ethical and Compliant Business, <a href="#">Page 18</a>	<a href="#">AR Form 10-K</a> Page 20
<b>GRI 413: LOCAL COMMUNITIES</b>			
413-1	Operations with local community engagement, impact assessments and development programs (percentage of operations)	Boeing Responds to COVID-19, <a href="#">Page 5</a> ; Purposeful Partnerships, <a href="#">Pages 52-53</a>	<a href="#">2021 Boeing Global Engagement Portfolio</a>
<b>GRI 414: SUPPLIER SOCIAL ASSESSMENT</b>			
414-1	New suppliers that were screened using social criteria		Boeing does not screen suppliers using social criteria.
<b>GRI 416: CUSTOMER HEALTH AND SAFETY</b>			
416-1	Assessment of the health and safety impacts of product and service categories	Boeing Responds to COVID-19, <a href="#">Page 6</a> ; Aerospace Safety and Quality, <a href="#">Page 34</a>	<a href="#">Confident Travel Initiative Statistical Summary of Commercial Jet Airplane Accidents</a>
416-2	Incidents of noncompliance concerning the health and safety impacts of products and services	Aerospace Safety and Quality, <a href="#">Page 34</a>	<a href="#">AR</a> Pages 2-3 <a href="#">PR</a> Pages 1-2 SASB RT-AE-250a.3 <a href="#">Statistical Summary of Commercial Jet Airplane Accidents</a>
<b>GRI 418: CUSTOMER PRIVACY</b>			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Data Privacy and Information Security, <a href="#">Page 49</a>	SASB RT-AE-230a.2
<b>GRI 419: SOCIOECONOMIC COMPLIANCE</b>			
419-1	Noncompliance with laws and regulations in the social and economic area		We are not aware of any items that we believe would be responsive to 419-1a.



# SASB Index

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Accounting Metric	Code	Boeing Metric or Qualitative Disclosure(s) and Disclosure Location(s)
<b>ENERGY MANAGEMENT</b>		
Total energy consumed	RT-AE-130a.1	Key ESG Data, <a href="#">Page 72</a>
Percentage of grid electricity	RT-AE-130a.1	Conserving Resources, <a href="#">Page 43</a>
Percentage of renewable energy	RT-AE-130a.1	Conserving Resources, <a href="#">Page 43</a>
<b>HAZARDOUS WASTE MANAGEMENT</b>		
Amount of hazardous waste generated	RT-AE-150a.1	Key ESG Data, <a href="#">Page 73</a>
Percentage of hazardous waste recycled	RT-AE-150a.1	Key ESG Data, <a href="#">Page 73</a>
Number and aggregate quantity of reportable spills	RT-AE-150a.2	Environmental Compliance and Biodiversity, <a href="#">Page 46</a> ; Key ESG Data, <a href="#">Page 73</a>
Quantity recovered from reportable spills	RT-AE-150a.2	N/A (no reportable spills per SASB application guidance)
<b>DATA SECURITY</b>		
Description of approach to identifying and addressing data security risks in company operations	RT-AE-230a.2	Boeing has a robust incident response program in the event of an actual or suspected incident, which includes processes and protocols required to anticipate, detect, mitigate and communicate potential impacts of an incident on Boeing's information assets, business operations and reputation. The key phases of all investigations include receiving alerts, mobilizing a response team, containment, investigation, recovery, notification/reporting and lessons learned. In order to ensure that the right people are engaged at the right time during an incident investigation, we have identified the internal and external organizations that need to be engaged for each incident type, the reporting protocols including Department of Defense and Securities and Exchange Commission (SEC) notification requirements, and the timing and sequence of key incident response activities. We routinely update our processes with lessons learned from prior incidents and simulations/tabletop exercises, ensuring that Boeing has a clear, effective and robust incident response process.
Description of approach to identifying and addressing data security risks in products	RT-AE-230a.2	Product Security Engineering provides a disciplined approach to the development and sustainment of our products, which is essential to ensuring mission assurance/resiliency and security. Security is integrated into our engineering processes starting from concept development, ensuring that we develop products that are secure by design. Key cyber attributes are identified during requirements engineering, allocated throughout design, implemented and validated during development, fully tested and supported during sustainment. Additionally Boeing works to ensure that our products are designed to anticipate, withstand, recover and adapt to cyberattack. Specifically our internal design practices have high-level requirements to baseline and monitor data flow and system behavior, detect anomalies and actively manage system configuration. The ability for our systems to understand normal operations and rapidly detect and mitigate abnormal operations, combined with the security engineering focus of our development processes, provides Boeing programs with a proactive approach to the risk of data breaches. Product security is also integrated into the Boeing enterprise Incident Response process, and we work seamlessly with stakeholders to rapidly identify, analyze and mitigate vulnerabilities and breaches across our portfolio.

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<b>PRODUCT SAFETY</b>		
Number of Airworthiness Directives received	RT-AE-250a.3	53 (see the <a href="#">FAA Dynamic Regulatory System Statistical Summary of Commercial Jet Airplane Accidents</a> )
<b>FUEL ECONOMY AND EMISSIONS IN USE-PHASE</b>		
Revenue from alternative-energy-related products	RT-AE-410a.1	Per ASTM standards, all commercial turbojet airplanes are certified to fly revenue passengers with a blend of up to 50% sustainable aviation fuels derived from biomass and other sustainable sources. Boeing Commercial Airplanes 2020 revenues (\$16,162 million) are listed in our <a href="#">AR Form 10-K</a> , Page 27.
Description of approach and discussion of strategy to address fuel economy and GHG emissions of products	RT-AE-410a.2	Partnering for Sustainable Aerospace, <a href="#">Pages 7-10</a> Innovation and Clean Technology, <a href="#">Page 37</a>
<b>MATERIALS SOURCING</b>		
Description of the management of risks associated with the use of critical materials	RT-AE-440a.1	<p><a href="#">AR Form 10-K</a> Pages 5, 13</p> <p>We are highly dependent on the availability of essential materials, parts and subassemblies from our suppliers and subcontractors. The most important raw materials required for our aerospace products are aluminum (sheet, plate, forgings and extrusions), titanium (sheet, plate, forgings and extrusions) and composites (including carbon and boron). Although alternative sources generally exist for these raw materials, qualification of the sources could take a year or more. Many major components and product equipment items are procured or subcontracted on a sole-source basis with a number of companies.</p>
<b>BUSINESS ETHICS</b>		
Discussion of processes to manage business ethics risks throughout the value chain	RT-AE-510a.3	<p><b>Boeing Operations:</b>        Ethical and Compliant Business, <a href="#">Pages 18-20</a>  <a href="#">Ethics and Compliance</a>  <a href="#">Ethical Business Conduct Guidelines</a></p> <p><b>Suppliers:</b>        Suppliers are encouraged to model their ethics program in accordance with the Federal Sentencing Guidelines and industry best practices. Boeing believes that our suppliers and partners share the goal of maintaining the highest standards of business conduct. This shared goal helps enable compliant company performance across all geographic locations. We also recognize that continued, collaborative partnership between our company, suppliers and other third parties leads to relationships built on trust and respect — which leads to enhanced business performance.  <a href="#">Boeing Supplier Principles</a></p>

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Accounting Metric	Code	Boeing Metric or Qualitative Disclosure(s) and Disclosure Location(s)
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**ACTIVITY METRICS**

Production by reportable segment	RT-AE-000.A	<p>2020 Full-Year Deliveries:</p> <p>737: 43            747: 5            767: 30            777: 26            787: 53</p> <p>AH-64 Apache (New): 19            AH-64 Apache (Remanufactured): 52            CH-47 Chinook (New): 27            CH-47 Chinook (Renewed): 3            F-15 Models: 4            F/A-18 Models: 20            KC-46A Tanker: 14            P-8 Models: 15</p> <p>The number of quarterly and annual deliveries for Boeing Commercial Airplanes and Boeing Defense, Space &amp; Security are provided in our quarterly Form 10-Q and annual Form 10-K filings with the U.S. Securities and Exchange Commission.</p>
Number of employees	RT-AE-000.B	<p>141,000</p> <p><a href="#">Employment Data</a></p>

# TCFD Index

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Disclosure	TCFD Recommended Disclosure	Sustainability Report Section(s)	Additional Reference(s)
<b>GOVERNANCE</b>	Describe the board's oversight of climate-related risks and opportunities	Governance and Risk Management, <a href="#">Pages 21-22</a>	CDP climate report <sup>1</sup> C1.1b
	Describe management's role in assessing and managing climate-related risks and opportunities		CDP climate report <sup>1</sup> C1.2, C1.2a
<b>STRATEGY</b>	Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term		CDP climate report <sup>1</sup> C2.3a, C2.4a
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning		CDP climate report <sup>1</sup> C2.3a, C2.4a, C3.3, C3.4
	Describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy and financial planning		CDP climate report <sup>1</sup> C3.2
<b>RISK MANAGEMENT</b>	Describe the organization's process for identifying and assessing climate-related risks		CDP climate report <sup>1</sup> C2.1, C2.2, C2.2a
	Describe the organization's processes for managing climate-related risks		CDP climate report <sup>1</sup> C2.1, C2.2
	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management	Governance and Risk Management, <a href="#">Page 21</a>	CDP climate report <sup>1</sup> C2.1, C2.2
<b>METRICS AND TARGETS</b>	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk-management process		CDP climate report <sup>1</sup> C4.2, C9.1
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Key ESG Data, <a href="#">Page 72</a>	CDP climate report <sup>1</sup> C6.1, C6.3, C6.5
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Addressing Climate Change, <a href="#">Page 41</a> ; Conserving Resources, <a href="#">Page 42</a>	CDP climate report <sup>1</sup> C4.1a, C4.1b, C4.2a, C4.2b In addition, the commercial aviation industry has ambitious goals for CO2 emissions, including 1.5% annual improvements in fuel efficiency for the global fleet, carbon-neutral growth starting from 2020 and a 50% reduction in CO2 emissions by 2050 compared with 2005 levels.

1. Boeing participates annually in the CDP climate report. Our most recent response is available on our website [here](#) in accordance with the CDP reporting schedule.

# SUSTAINABLE DEVELOPMENT GOALS

U.N. Sustainable Development Goals (SDG) are a universal call to action to end poverty, protect the planet, and improve the lives and prospects of everyone, everywhere. Boeing supports all 17 SDGs and has identified eight goals of focus, listed at right and on the following page, in which we are committed to outcomes that make the world a better place for all.



## Good Health and Well-Being

- Our Go for Zero initiative prioritizes workplace safety. Since Go for Zero’s introduction in 2013, Boeing has seen significant reductions in serious safety accidents and injuries.
- Boeing provides 12 weeks off with full pay to mothers and fathers for the birth, adoption or surrogacy of a child or placement of a foster child.<sup>1</sup>
- During the COVID-19 pandemic, Boeing adjusted its operations and implemented extensive safety precautions to reduce the spread of the COVID-19 virus, helped deliver more than 4.5 million units of personal protective equipment and produced 40,000 3D-printed face shields at 18 Boeing sites.



## Quality Education

- We support STEM education and seek to inspire the next generation of innovators, contributing nearly \$50 million across 267 grants to support STEM education and workforce development programs in 2020.
- Through free, online STEM programs around the world such as FUTURE U, FIRST Robotics, Newton Rooms and Soar With Your Dream, we have introduced millions of young minds to the wonder of aerospace and technology.
- We have invested more than \$1 billion in our employees’ college tuition, books and fees through our industry-leading Learning Together tuition assistance program and continue to do so.



## Gender Equality

- The underrepresentation of girls and women in STEM fields is a global challenge. In 2020, we inspired an estimated 3.7 million young women and girls in STEM.
- Boeing is also a global supporter of Catalyst — a recognized leader in gender equity with a mission to accelerate progress for women through workplace inclusion.
- Over the past nine years, Boeing and The Boeing Charitable Trust have contributed \$232 million toward community initiatives that have had a positive impact on nearly 10 million young women and girls around the world.



## Decent Work and Economic Growth

- Boeing is proud to be a vital part of the global aviation community that, in a pre-COVID-19 world, supported over 88 million jobs and \$3.5 trillion in global economic activity per year.
- Boeing and its employees donated more than \$234 million and contributed 250,000 volunteer hours to 13,400 community partners in 2020 to help build better communities worldwide.
- Boeing contracts with approximately 12,000 suppliers globally. In 2020, we spent nearly \$48 billion with suppliers from 58 countries and in all 50 U.S. states.

1. While some benefit programs are global, certain programs and offerings vary by country, subject to program availability, local laws and customs.

# SUSTAINABLE DEVELOPMENT GOALS

Boeing and our suppliers jointly work together toward the success and sustainability of the supply chain. Noted here are relevant examples of our alignment with the SDGs.



## Industry Innovation and Infrastructure

- Boeing has invested more than \$60 billion over the last 10 years in key strategic areas, including innovative technologies such as digital manufacturing, carbon composite materials, advanced high-bypass-ratio engine designs and other aerodynamic improvements such as natural laminar flow that reduces drag to improve environmental efficiency.
- Each new generation of Boeing airplanes is 15% to 25% more efficient than the generation before.
- Our team is shaping the future of sustainable aviation through research and technology development focused on unlocking the potential of sustainable fuels, improved flight performance and renewable energy applications.
- Boeing is committed to delivering commercial airplanes that are capable and certified to fly on 100% sustainable aviation fuel by 2030.



## Reduced Inequalities

- Boeing will provide — at a minimum — \$25 million to advance racial equity and social justice in our communities by 2023.
- In 2020, Boeing invested \$15.6 million to promote racial equity and social justice programs — including funding aimed at diversifying the aerospace workforce.
- Boeing established an Equity Action Plan and Racial Equity Task Force in 2020 and committed to a 20% increase in representation of Black Boeing employees in the United States.



## Responsible Consumption and Production

- Boeing is committed to reducing greenhouse gas emissions by 25%, water consumption and solid waste to landfill by 20%, energy use by 10% and hazardous waste by 5% within its operations by 2025 (compared to 2017 levels).
- Boeing manufacturing, worksites and business travel achieved net-zero CO2 emissions in 2020 through conservation, renewable electricity and responsible offsets.
- Innovative carbon-fiber recycling at 11 Boeing manufacturing sites is set to divert up to 1 million pounds (454,000 kilograms) of solid waste from landfills annually and is zero waste to landfill at six sites.



## Climate Action

- Boeing actively supports the industry's goals to decarbonize aviation through continued advancements in technology, operations and infrastructure, sustainable aviation fuels and carbon offsets.
- We have been a leader in collaborating across the industry to pioneer sustainable aviation fuels, which reduce CO2 emissions from flying by up to 80% over the fuel's life cycle.
- Our factories in Renton, Washington, and Charleston, South Carolina; sites in Illinois, Indiana, Ohio, Pennsylvania and Texas; and a large data center in Arizona run on 100% renewable electricity.

# Awards and Recognition / Memberships and Partnerships



## PEOPLE

- American Indian Science and Engineering Society Top 50 Workplace for Indigenous STEM Professionals
- Arizona Department of Veterans’ Services and Arizona Coalition for Military Families — Arizona Veteran Supportive Employer
- Career Communications Group Inc. Top Supporter of HBCU Engineering Schools (No. 2)
- Dave Thomas Foundation for Adoption Best for Adoption-Friendly Workplace (No. 36)
- DiversityInc Top 50 Company for Diversity (No. 17 in 2021)
- Disability:IN Best Places to Work for Disability Inclusion (achieved score of 100%)

- Military Times Best for Vets Employers (No. 7)
- Top 10 Military Friendly® Company (No. 5)

## PRODUCTS AND SERVICES

- Derwent/Clarivate Top 100 Global Innovators
- National Aeronautic Association Robert J. Collier Trophy awarded to the U.S. Air Force and Boeing team for the X-37B autonomous spaceplane

## COMMUNITIES

- Chief Executives for Corporate Purpose — ranked in the top quartile for total giving
- Wildlife Habitat Council Habitat Restoration Award

## OPERATIONS

- U.S. Environmental Protection Agency (EPA) Green Power Partnership Fortune 500 Partner List (No. 19)
- EPA Energy Star Partner of the Year every year since 2010
- National Association of Manufacturers Sustainability Leadership High Achiever Award
- Pierce Conservation District Brian Abbott Above and Beyond Award

## Key Memberships and Partnerships

- |  |  |  |   |
|--|--|--|---|
| <ul style="list-style-type: none"> <li>– Aerospace Industries Association of America Inc.</li> <li>– Aircraft Fleet Recycling Association</li> <li>– Air Transport Action Group</li> <li>– Alliance of Western Energy Consumers</li> <li>– Association of Unmanned Vehicle Systems International</li> <li>– Association of Washington Business</li> <li>– Brazil-U.S. Business Council</li> <li>– Business Roundtable</li> </ul> | <ul style="list-style-type: none"> <li>– Corporate Eco Forum</li> <li>– Dallas Regional Chamber</li> <li>– General Aviation Manufacturers Association</li> <li>– Great Seattle Chamber of Commerce</li> <li>– International Aerospace Environmental Group</li> <li>– International Air Transport Association</li> <li>– International Civil Aviation Organization</li> <li>– FIRST Robotics</li> </ul> | <ul style="list-style-type: none"> <li>– National Association of Manufacturers</li> <li>– Newton Europe</li> <li>– Out &amp; Equal Workplace Advocates</li> <li>– Renewable Energy Buyers Alliance</li> <li>– Responsible Business Alliance</li> <li>– Roundtable on Sustainable Biomaterials</li> <li>– Society of Women Engineers</li> <li>– St. Louis Regional Chamber of Commerce</li> </ul> | <ul style="list-style-type: none"> <li>– Sustainability 50/World 50</li> <li>– United Service Organization</li> <li>– U.S. Chamber of Commerce</li> <li>– U.S. Council for International Business</li> <li>– Washington Roundtable</li> <li>– Wildlife Habitat Council</li> <li>– World Economic Forum</li> </ul> |
|--|--|--|---|

**For a list of community partners, refer to Pages 46-48 of the 2021 Boeing Global Engagement Portfolio.**

# Key ESG Data

## ENVIRONMENTAL DATA

Energy	Megawatt hours	Terajoules
Natural gas	1,716,000	6,178
Jet kerosene	569,000	2,048
Fuel oil #2	103,000	371
Motor gasoline	21,000	76
Propane	12,000	43
Liquefied petroleum gas	–	–
<b>Total nonrenewable fuels</b>	<b>2,421,000</b>	<b>8,716</b>
Sustainable aviation fuel	2,000	7
<b>Total renewable fuels</b>	<b>2,000</b>	<b>7</b>
Purchased nonrenewable electricity	1,686,000	6,070
Purchased renewable electricity	392,000	1,411
<b>Total purchased electricity</b>	<b>2,078,000</b>	<b>7,481</b>
<b>Total energy use</b>	<b>4,499,000</b>	<b>16,196</b>
Percentage of total energy that is renewable	9%	
Percentage of total electricity that is grid electricity	37%	
Energy intensity	0.08 kWh/\$ revenue	

Data represents 100% of the company.

Renewable electricity data excludes any renewable energy that is part of the grid by default, in alignment with SASB and other frameworks. Notably, Boeing operates in a number of grids that rely significantly on renewable sources.

Boeing did not sell any electricity, heating or cooling energy.

Water	Kilogallons	Megaliters	Total water withdrawal from water-stressed areas
<b>OFF-SITE WATER SOURCES</b>			
Surface water withdrawal	639,167	2,420	0%
Combination of surface water and groundwater withdrawal	423,353	1,603	22%
Groundwater withdrawal	83,596	316	31%
Reclaimed water (not withdrawn)	2,778	11	–
<b>Total water withdrawal</b>	<b>1,148,894</b>	<b>4,350</b>	<b>10%</b>

### ON-SITE WATER SOURCES

On-site well water use	2,352	9	100%
On-site water reclamation	10,508	40	–

Boeing does not use seawater.

Water-stressed areas are those with high or extremely high water stress in the World Resources Institute Aqueduct Model.

Data represents 79% of operations by headcount.

Emissions	Tons CO2e	Metric tons CO2e
Scope 1 GHG	617,000	560,000
Scope 2 GHG — location-based	882,000	800,000
Scope 2 GHG — market-based	689,000	625,000
Scope 3 GHG — business travel	101,000	92,000
Scope 3 GHG — use of sold products	175,000,000	158,000,000
<b>Total calculated GHG excluding sold products</b>	<b>2,289,000</b>	<b>2,077,000</b>
Core metrics sites GHG — location-based	1,091,000	990,000
Core metrics sites GHG — market-based	902,000	818,000
GHG intensity	0.00002 MT/\$ revenue	

Scope 1 and 2 data represents 100% of the company.

For Scopes 1, 2 and 3, we calculate emissions from CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> for this dataset.

Core metrics sites data represents emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O where we track a subset of emissions from natural gas combustion and purchased electricity associated with sites that represent the majority (70%) of Boeing operations.

GHG intensity includes Scope 1 and Scope 2 GHG (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>).

Use of sold products emissions are based on estimated lifetime emissions of Boeing Commercial Airplanes product deliveries in 2020, including direct emissions from combustion of fuel (136M metric tons) and indirect emissions from production of fuel (22M metric tons).



## ENVIRONMENTAL DATA

Waste	Metric tons	Waste	Metric tons
Hazardous waste incinerated for energy recovery	747	Solid waste incinerated for energy recovery	2,633
Hazardous waste incinerated without energy recovery	1,019	Solid waste sent to landfill	8,888
Hazardous waste sent to landfill	2,143	Percentage of solid waste recycled	75%
Hazardous waste otherwise disposed	1,026	<b>Total solid waste generated</b>	<b>11,521</b>
Percentage of hazardous waste recycled	0.4%	<b>Total waste incinerated for energy recovery</b>	<b>3,527</b>
<b>Total hazardous waste generated</b>	<b>4,935</b>	<b>Total waste incinerated without energy recovery</b>	<b>1,095</b>
Nonhazardous waste incinerated for energy recovery	147	<b>Total waste sent to landfill</b>	<b>11,384</b>
Nonhazardous waste incinerated without energy recovery	76	<b>Total waste otherwise disposed</b>	<b>1,094</b>
Nonhazardous waste sent to landfill	343	Percentage of total waste recycled	59%
Nonhazardous waste otherwise disposed	68	<b>Total waste generated</b>	<b>40,841</b>
Percentage of nonhazardous waste recycled	12%	Incidents incurring a penalty over US\$10,000	1
<b>Total nonhazardous waste generated</b>	<b>634</b>	Total of penalties over US\$10,000	\$17,410
Universal waste incinerated without energy recovery	1	Number of aggregate spills	0
Universal waste sent to landfill	10	Quantity spilled	0
Percentage of universal waste recycled	62%	Quantity of spilled material recovered	N/A
<b>Total universal waste generated</b>	<b>11</b>		

Waste data represents approximately 70% of operations by headcount. Compliance data represents all operations. Total waste generated includes all recycled, reused and composted material.

## PEOPLE

### Health and Well-Being

Fatalities	0
Lost workday case rate	0.43
Near-miss/hazard ratio to recordable injuries	24:1
Found/fixed metric	98%

### Global Equity, Diversity and Inclusion

#### Employee Representation

Total Boeing employees	141,000
Non-U.S. employees	11%
Total Boeing employees covered by collective bargaining agreements	33%
U.S. employees who are veterans <sup>1</sup>	14.8%

Veterans Data: U.S.-based work locations of The Boeing Company, excluding non-fully integrated subsidiaries that are not on Boeing HR systems.

1. As of Dec. 17, 2020

#### Female Representation<sup>1</sup>

Overall (U.S.)	22.9%
Overall (Non-U.S.)	24.3%
Board of Directors	25.0%
Executive Council <sup>2</sup>	13.6%
Executives	31.8%
Managers	22.2%
New hires	22.0%

Gender Data: U.S.-based work locations of The Boeing Company, excluding subsidiaries except where noted.

1. As of Dec. 17, 2020

2. Executive Council gender data includes both U.S. and non-U.S. members.

### Racial and Ethnic Minority Representation<sup>1</sup>

Overall	31.2%
Board of Directors	16.7%
Executive Council <sup>2</sup>	35.0%
Executives	20.8%
Managers	23.0%
New hires	37.2%

Race and Ethnicity Data: U.S.-based work locations of The Boeing Company, excluding non-fully integrated subsidiaries that are not on Boeing HR systems.

Racial and ethnic minorities include Black, Asian, Hispanic, American Indian/Alaskan Native, Native Hawaiian or Other Pacific Islander, and Two or More Races.

1. As of Dec. 17, 2020

2. Executive Council Race and Ethnicity data does not include non-U.S. members. However, Susan Doniz, Chief Information Officer and senior vice president of Information Technology & Data Analytics, openly identifies as Hispanic.

## COMMUNITIES

### Community Engagement

Community giving	\$234 million
Total volunteer hours	250,000 hours
Number of community partners	13,400
Contribution to grants supporting STEM education and workforce development programs	\$50 million
Grants supporting STEM education and workforce development programs	267
Contribution to veterans organizations	\$14.2 million
Veterans organizations supported	97
Contribution to nonprofits supporting racial equity and social justice	\$15.6 million

## GOVERNANCE

### Ethics Metrics

Inquiries	3,181
Conflict of interest determinations	1,864
Investigative requests	4,786
<b>Total contacts to Ethics &amp; Business Conduct<sup>1</sup></b>	<b>9,831</b>
Investigative requests with enough information to investigate <sup>2</sup>	3,561
Percentage of investigated requests that were substantiated <sup>3</sup>	47%

1. Data reflects the reporting period of November 2019 through October 2020.

2. Investigated matters are unsubstantiated by Ethics when the investigation findings do not support a violation of policy or expected behaviors or where there is not sufficient evidence of misconduct.

3. A recent evaluation demonstrated that Boeing's substantiation rate is slightly higher than other published benchmarks, indicating an effective investigation process and informed reporting by company employees.

# Forward-Looking Statements

## Caution Concerning Forward-Looking Statements

Certain statements in this report may be “forward-looking” within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “should,” “expects,” “intends,” “projects,” “plans,” “believes,” “estimates,” “targets,” “anticipates” and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future plans, business prospects, financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact. Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties and changes in circumstances that are difficult to predict.

Many factors could cause actual results to differ materially and adversely from these forward-looking statements, including the COVID-19 pandemic and related industry impacts; the 737 MAX, including the timing and conditions of 737 MAX regulatory approvals, lower than planned production rates and/or delivery rates, and increased considerations to customers and suppliers; economic conditions in the United States and globally; general market and industry conditions as they may impact us or our customers; reliance on our commercial customers, our U.S. government customers and our suppliers; the overall health of our aircraft production system, as well as the other important factors disclosed previously and from time to time in The Boeing Company’s filings with the Securities and Exchange Commission. Any forward-looking statement speaks only as of the date on which it is made, and we assume no obligation to update or revise any such statement, whether as a result of new information, future events or otherwise, except as required by law.



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### Annual Report and Proxy

View our Annual Report and Proxy to find additional information about our financial performance and Boeing business practices. [boeing.com/annual-report](https://www.boeing.com/annual-report).

### Global Equity, Diversity & Inclusion

We believe in a culture and workplace where everyone is respected, valued and inspired to reach their fullest potential. Learn more about our Global Equity, Diversity & Inclusion efforts at [boeing.com/diversity](https://www.boeing.com/diversity).

### Community Engagement

Through purposeful investments, employee engagement and thoughtful advocacy efforts, Boeing and its employees are helping build better communities worldwide. Learn more at [boeing.com/community](https://www.boeing.com/community).