Moving innovation forward

Task Force on Climate-related Financial Disclosures (TCFD) Report
June 26, 2025

GE Aerospace

Introduction

This report details our approach and performance as an independent public company across the TCFD framework. This covers Strategy, metrics, and targets; Governance; and Risk management. This report also incorporates a TCFD index and supplements our 2025 Sustainability Report.

The performance data in this report covers the calendar year from January 1 to December 31, 2024. In certain places, there is also commentary about events, achievements, and initiatives that took place during the first half of 2025. Carbon emissions data has undergone limited assurance by Stantec, an external third party, for base year 2019 (Scopes 1 and 2) and reporting years 2023 and 2024 (Scopes 1, 2, and 3 from the use of sold products for commercial engines).

The industry is taking active steps to address the environmental impact of aviation, particularly linked with CO_2 emissions. According to the Air Transport Action Group (ATAG), airline operations produced 882 million metric tons of CO_2 in 2023, just over 2% of the total human carbon emissions.[1]

Achieving the industry's net zero carbon emissions by 2050 goal will require a substantial effort from a wide range of participants, including aircraft manufacturers, airlines, aviation industry suppliers, and companies outside the industry, such as fuel and energy producers and policymakers.

This report outlines how climate change may impact GE Aerospace's activities and sets out our approach to mitigating potential risks.

Forward-looking statements

This report contains "forward-looking statements"—statements related to future events that, by their nature, address matters that are uncertain to different degrees.

See the investor relations section of our website for details of the uncertainties that may cause our actual future results to be materially different than those expressed in our forward-looking statements, as well as our annual reports on Form 10-K and quarterly reports on Form 10-Q. We do not undertake to update our forward-looking statements.

Non-GAAP financial measures

In this report, we sometimes use information derived from consolidated financial data but not presented in our financial statements prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP). Certain of these data are considered "non-GAAP financial measures" under the U.S. Securities and Exchange Commission (SEC) rules. These non-GAAP financial measures supplement our GAAP disclosures and should not be considered an alternative to the GAAP measure. The reasons we use these non-GAAP financial measures, and the reconciliations to their most directly comparable GAAP financial measures, are included in our earnings materials, our most recent annual report on Form 10-K, and other SEC filings, as applicable.

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Definitions

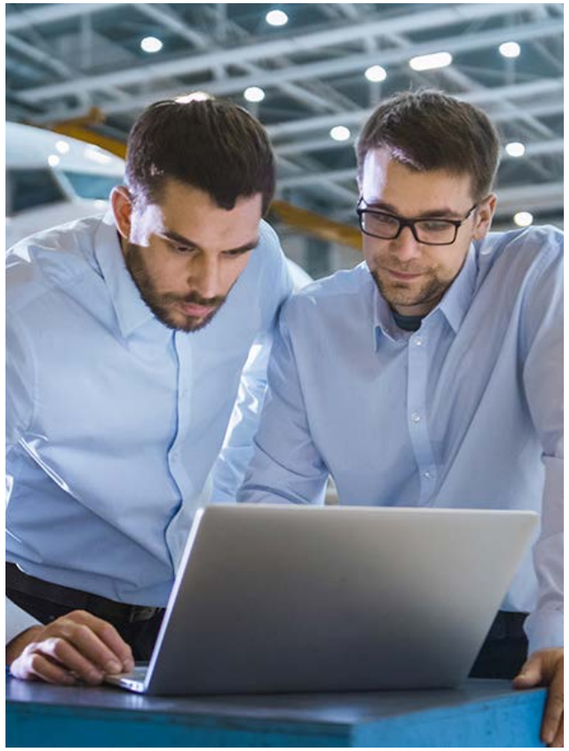
CFM International is a 50/50 joint venture between GE Aerospace and Safran Aircraft Engines that produces CFM56 and LEAP engine families.

Engine Alliance is a 50/50 joint venture between GE Aerospace and Pratt & Whitney that produces the GP7200 engine.

GE Honda Aero Engines is a joint venture between GE Aerospace and Honda Aero that produces the HF120 engine.

Revolutionary Innovation for Sustainable Engines (RISE) is a development and demonstration program of CFM International. **CFM RISE** is a registered trademark.

Sustainable Aviation Fuel (SAF) is a type of synthetic aviation fuel. Not all synthetic fuels are SAF.



1 ATAG: Aviation Benefits Beyond Borders, December 2024.

Strategy, metrics, and targets

We are building on the spirit of invention that has fueled us for over a century to help support the industry's goal of achieving net zero carbon emissions by 2050.[2]

Technology innovation

In terms of innovation, the implementation of next-generation technology will depend on the evolution of new aircraft and engine designs, infrastructure, and regulations, in accordance with the sector's considerations regarding safety, reliability, and the physics of aviation. While this journey will be measured in decades, the commercial aviation industry's ambition to achieve net zero carbon emissions by 2050 is driving action today.

Our ambition is to achieve net zero by 2050 for Scope 3 carbon emissions from the use of sold products for commercial engines—the most impactful and relevant emissions category, given the nature of our business.

We endeavor to support our customers by continuing to deliver more efficient engines and new forms of propulsion. The engines we manufacture today enable up to 40% less fuel consumption and up to 40% less carbon emissions than those manufactured in the 1970s and 1980s. For the future of flight, GE Aerospace is advancing new aviation technologies through demonstrators including the CFM RISE program. The aim of the program is to develop technologies that will enable engines that are at least 20% more fuel efficient and generate 20% less carbon emissions than today's most efficient commercial engines, and that are compatible with alternative energy sources such as SAF, while meeting customer expectations for durability and reliability. SAF can reduce fuel lifecycle emissions by up to 80%.

The technology pillars that comprise the CFM RISE program are advanced engine architectures such as Open Fan, compact core designs, hybrid electric systems, and alternative fuels.

Moving our efforts beyond propulsion leadership, we established Aerospace Carbon Solutions to catalyze progress in SAF and carbon removal credits, which will be essential to the industry achieving its decarbonization goals. We are also mobilizing our team at GE Aerospace's research center to design technologies that reduce the cost and increase the potential scale of SAF refining, hydrogen production, and direct air carbon capture.

GE Aerospace remains focused on innovating cutting-edge technology and making operational improvements to help meet historic demand while decreasing emissions. We invested approximately $2.7 billion in research and development (R&D) in 2024,[3] including the development of technologies for a smarter and more efficient future of flight.

Scope 3 carbon emissions: Use of sold products[4,5,6]
(million metric tons CO_2)

2019	2022	2023	2024
51.73	25.05	30.62	27.86

GE Aerospace's net Scope 3 carbon emissions from the use of sold products for commercial engines[7] decreased from 2019 to 2022 due to lower engine sales in light of reduced demand for travel during COVID-19, 737 MAX groundings, and supply chain constraints. Net carbon emissions saw an increase in 2023 driven by increased global travel demand, followed by a 9% decrease in 2024 compared to the previous year, primarily due to a reduction in engine deliveries caused by continued supply chain constraints. We expect our net carbon emissions to continue to increase as demand for travel increases.

Scope 3 carbon emissions intensity[5,6]
(grams CO_2/RPK[8])

2019	2022	2023	2024
5.96	5.67	5.17	5.37

Estimated lifetime emissions of commercial engine products installed on widebody, narrowbody, regional, and business jet aircraft by year. Based on Greenhouse Gas Protocol, Scope 3 use of sold products, category 11 methodology.

To learn more about our methodology for calculating emissions, please see our 2025 Sustainability Report: Supplementary Materials appendix.

2 https://www.atag.org/
3 Amount represents research and development as reported in our 2024 Form 10-K and includes customer and partner funding.
4 Calculations use actual commercial engine deliveries by GE Aerospace/GE Aerospace Partnership companies to airframers for installation on new aircraft in alignment with our financial reporting.
5 2019 and 2022–2024 data is presented here to reflect the profile of GE Aerospace as it exists today.
6 Figures do not include any SAF projection over the forecast product life.
7 Estimated lifetime emissions of commercial engine products installed on widebody, narrowbody, regional, and business jet aircraft by year.
8 Revenue, passenger per kilometer.

GE Aerospace's roadmap for the future of flight

This summary shows our across-the-board activities to support the future of flight, including the development of more efficient engine technologies compatible with alternative fuels by collaborating with others across the industry. In addition, we are exploring the use of carbon-reduction market mechanisms consistent with industry roadmaps.

Actions pre-2020	2020–2030	2030–2050
Engine technology		
• More fuel-efficient commercial engine products certified: Passport, GEnx, CFM LEAP • Twin Annular Premixing Swirler (TAPS) combustor to reduce nitrogen oxide (NOx) emissions • Fewer part counts, optimized part designs from additive manufacturing vs. conventional manufacturing	• More fuel-efficient commercial engines certified: GE9X • CFM RISE program unveiled, advancing a suite of engine technologies including advanced engine architectures such as Open Fan, compact core, and hybrid electric systems • World's first to test high-power, high-voltage hybrid electric components in simulated altitude conditions up to 45,000 feet	• Potential entry into service of new engine technologies that, combined, could achieve at least 20% better fuel efficiency than today's most efficient commercial engines
Operational efficiency		
• Real-time data monitoring of operator fleets • Flight Management System for optimized airport descents • Fuel Insight software enables increases in fuel efficiency, lower costs, and reductions in carbon emissions	• Expanded real-time data monitoring and records • Fuel Insight, FlightPulse™, and Airspace Insight software use data to optimize flight plans and routes for fuel savings • SIGNPOST and DECISIONX software from Aerospace Carbon Solutions enable airlines to manage regulatory and voluntary CO_2 and non-CO_2 emissions	• Enhanced flight data analytics for fuel savings recommendations
SAF		
• All GE Aerospace and partner engines can operate on approved SAF blends • Industry's first commercial airliner flight with 100% SAF in both GE90 engines • Active participation in ASTM International for qualification of new SAF production pathways and co-processing approaches	• Tested 10th aircraft engine model with 100% SAF and conducted first experimental flight with invited passengers using 100% SAF in one of two LEAP-1B engines • Chair ASTM International committee responsible for SAF pathway qualifications and development of 100% drop-in SAF specification • GE Aerospace's research center, working with Aerospace Carbon Solutions, is developing technologies that could help close the cost gap between SAF and conventional jet fuel to support industry efforts to grow the availability and adoption of SAF	• Support adoption of 100% SAF • GE Aerospace and partner engines can operate on 100% drop-in SAF once approved for commercial use
Market-based mechanism		
	• Pursuing partnerships within the carbon credit market to accelerate deployment and lower technology cost • Support operationalization of market-based mechanisms to help accelerate the availability of CORSIA-eligible carbon credits	• Exploring expansion of our investments in carbon dioxide removal (CDR) solutions such as direct air capture • Continue to support the supply of and access to CORSIA-eligible carbon credits for the aviation industry

2024 and 2025 progress

- Agreement with U.S. Department of Energy to expand supercomputing capability for revolutionary new Open Fan engine architecture
- CFM and Airbus teams continue to work together on engine and aircraft design integration in preparation for an Open Fan Flight Test Demonstrator this decade
- GE Aerospace, Boeing, and NASA study performance of installed Open Fan engine design
- More than 350 tests completed for the CFM RISE program
- Avio Aero receives U.S. Federal Aviation Administration (FAA) certification for Catalyst™ turboprop engine
- Procured 250,000 gallons of blended SAF to be physically delivered to Peebles Test Operation and sustainable fuel certificates (SAFc) for 400,000 gallons of neat SAF, through book-and-claim
- GE Aerospace acquired a contrail management and forecasting company

More details on our current and future technologies can be found in our 2025 Sustainability Report.

Operations

Our goal is to achieve net zero carbon for Scope 1 and 2 operational emissions by 2030.[9]

To do so, we are using FLIGHT DECK to reduce energy waste and increase energy efficiency while transitioning to decarbonized power globally. While we are focused on driving absolute reductions to achieve net zero, where necessary, we plan to balance remaining emissions with carbon removal credits. GE Aerospace internally tracks progress to established targets against a 2019 base year.

By the end of 2024, we reduced our Scope 1 and 2 (market-based) CO_2e emissions by 43% versus a 2019 base year.

More details on how we are optimizing our operations can be found in our 2025 Sustainability Report.

Our progress to date

Driving energy efficiency

Infrastructure investments, operational optimization, and FLIGHT DECK Fundamentals help us improve energy efficiency.

GE Aerospace uses a Carbon KPI to track carbon emissions reductions at participating sites. Projects and actions implemented in 2024 have led to an annual reduction of approximately 13,900 metric tons of CO_2e.

One of the levers we are using to achieve our 2030 net zero carbon goal is improving our acceptance testing fuel efficiency. As of 2024, we have consumed 15.7% less fuel compared to an equivalent mix of engines at our largest testing site, Peebles, in 2023.

Using low-carbon fuels in our testing operations

SAF will be a significant contributor to the decarbonization of commercial aviation and GE Aerospace has been active in the assessment and qualification of SAF since 2006. In 2024, GE Aerospace procured 250,000 gallons of blended SAF to be physically delivered to Peebles Test Operation.

Market-based solutions as a decarbonization lever

Aerospace Carbon Solutions was created to further empower our customers with incremental tools and services to decarbonize at the lowest cost possible. Additionally, we are putting our capabilities into practice through the use of available decarbonization levers to help address our own Scope 1 emissions:

- 400,000 gallons of neat SAF purchased through the book-and-claim system
- ~1,000 metric tons of CO_2 offset from Scope 1 fleet emissions using carbon removal credits

By decoupling the physical fuel product from its lifecycle carbon emissions reduction, book-and-claim enables greater SAF adoption by eliminating the geographic barriers of benefiting from the use of SAF, allowing more customers to participate in SAF investments. This minimizes the added environmental footprint of physically delivering SAF, by uplifting near the point of production and taking credit for SAF environmental benefits.

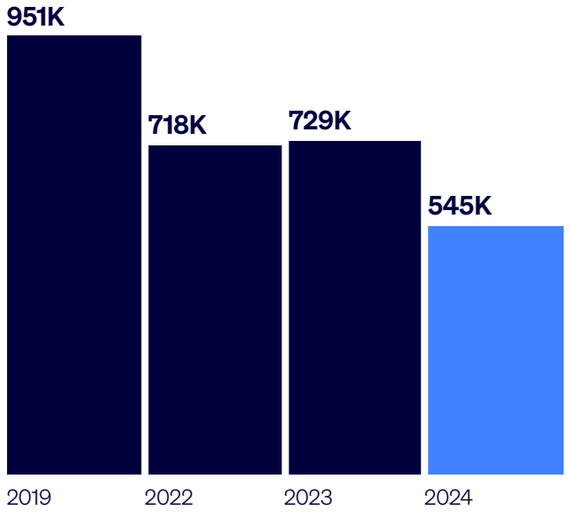
Carbon-free electricity[10]

In addition to making operational improvements in energy efficiency, we are also focused on procuring carbon-free electricity, including on-site solar electricity. We are actively engaging with energy power providers and identifying market mechanism opportunities such as power purchase agreements (PPAs). These would enable us to purchase a stable supply of carbon-free electricity over a specified period of time while supporting the development of renewable energy projects.

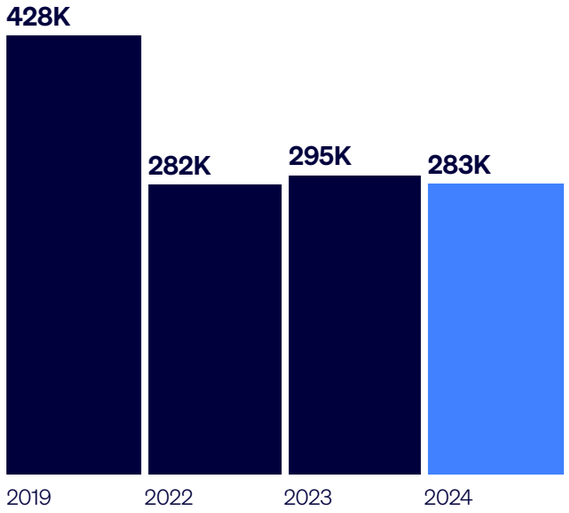
9 Locations within GE Aerospace's operational control as defined by the GHG Protocol.

10 Carbon-free energy use based on generation from GE Aerospace-owned renewable assets (solar, wind, or other), Power Purchase Agreements (PPAs), and Environmental Attribute Certificates (EACs) among others.

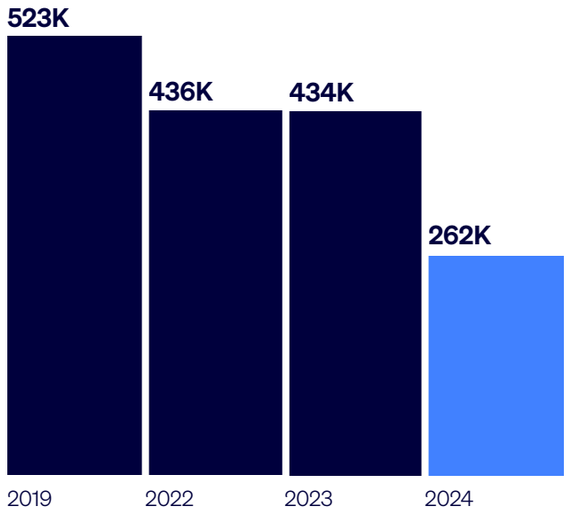
Total emissions (absolute Scope 1 and 2)[18]
(metric tons CO_2e) (market-based)



Scope 1 emissions[11,14,18]
(metric tons CO_2e) (market-based)



Scope 2 emissions[11,18]
(metric tons CO_2e) (market-based)



Emissions and energy use[11,12]

	2019[13]	2022	2023	2024
Total emissions (absolute Scope 1 and 2)—market-based (metric tons CO_2e)	951,490	718,458	728,592	544,922
Scope 1 emissions—market-based (metric tons CO_2e)[14]	428,000	282,456	294,537	283,359
Scope 1 emissions—location-based (metric tons CO_2e)	428,000	282,456	294,537	288,663
Scope 2 emissions—market-based (metric tons CO_2e)	523,490	436,002	434,056	261,563
Scope 2 emissions—location-based (metric tons CO_2e)	513,078	441,302	441,385	418,013
Operational energy used (MWh)	3,255,320	2,685,746	2,476,158	2,494,212
Total electricity (MWh)[15]	1,400,434	1,278,055	1,276,090	1,277,961
Carbon-free electricity (MWh)[16,17]	0	61,720	77,198	451,388
Percentage of carbon-free electricity (%)	0	5%	6%	35%

11 2019 and 2022–2024 data is presented here to reflect the profile of GE Aerospace as it exists today.
12 Carbon emissions for base year 2019 and reporting years 2023 and 2024 have undergone limited assurance by an external audit.
13 GE Aerospace uses 2019 as the baseline year for emissions tracking. This baseline reflects the company's current operations. Significant changes affecting emissions by more than 5% will prompt a recalculation of this baseline.
14 Scope 1 market-based accounts for market-based mechanisms.
15 Total includes the electricity usage for facilities and fleet.
16 Carbon-free electricity refers to electrical energy produced from resources that generate no carbon emissions while operating.
17 Data includes Environment Attribute Certificates (EACs) (bundled and unbundled) and on-site generation.
18 Data values are rounded.

Governance

Sustainability governance structure

The GE Aerospace Board of Directors (the Board) and its committees oversee the establishment and execution of corporate strategy. The company's senior leadership team is responsible for developing our sustainability strategy, focusing on priorities, and for the company's sustainability performance—and reports to the Board and its committees on GE Aerospace's sustainability activities and progress. Our sustainability function coordinates day-to-day sustainability-related activities and is led by the CEO of Aerospace Carbon Solutions and Sustainability.

Board oversight of sustainability

The GE Aerospace Board of Directors oversees the company's sustainability priorities and initiatives as an integrated part of our overall strategy and risk management. Matters related to sustainability often span multiple functional categories and areas of oversight, and therefore involve discussion at the full Board level as well as at individual committees.

The Governance & Public Affairs Committee (Governance Committee) has primary oversight of our priorities and external reporting related to sustainability matters. This includes supporting the full Board's oversight of strategy, risks, and opportunities related to sustainability. The Governance Committee also oversees political spending and advocacy, human rights, and environmental, health, and safety (EHS).

The Audit Committee also has a role to play in sustainability matters, to the extent these topics relate to financial reporting and regulatory requirements. This includes reporting on these matters in Securities and Exchange Commission (SEC) filings and data quality related to this reporting.

More information on the role of each committee can be found in our 2025 Sustainability Report.

Management oversight of sustainability

Strong sustainability engagement from management and the sustainability function enables effective oversight and alignment across our organization's key functions.

Sustainability Senior Aerospace Leadership Team (SALT) Steering Committee

Our Sustainability SALT Steering Committee comprises senior leaders from key business areas and functions. The Committee develops the company's sustainability strategy, focusing on our sustainability priorities, and is responsible for sustainability performance and integration across the company.

Sustainability Council

Chaired by our sustainability leader and staffed by a wide range of corporate functions, including legal, finance, sustainability, communications, investor relations, talent development, human resources, supply chain, and quality, the Sustainability Council meets monthly to:

- Support sustainability strategy and implement sustainability initiatives across business units and functions
- Monitor progress toward delivering on sustainability goals established by the Sustainability SALT Steering Committee
- Address gaps in our sustainability programs
- Review sustainability disclosures, including the Sustainability Report and regulatory reporting requirements

Progress and challenges in the areas above are escalated to the Sustainability SALT Steering Committee as needed.

Read more about our sustainability oversight in our 2025 Sustainability Report.

Policy engagement

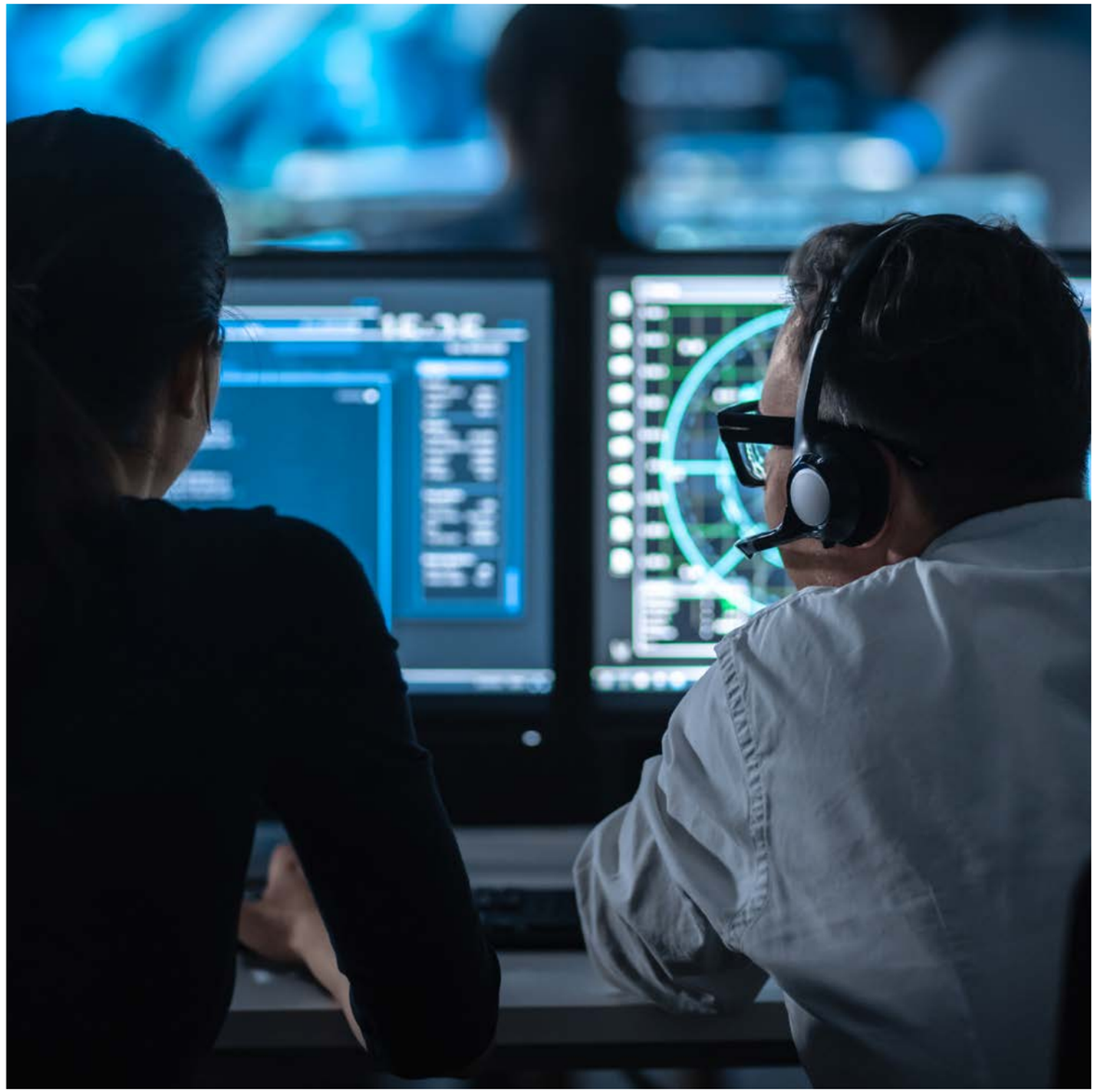
Advancing policy development will require continued partnerships across governments, business, and civil society. With a more than 100-year history of working with our customers and other stakeholders, we continue to engage in the public domain and advance thought leadership and research on product safety in the aviation industry, as well as the development of more efficient technologies that will shape the future of flight.

The International Civil Aviation Organization (ICAO) provides a global framework to help ensure the safety of the commercial aviation industry, including environmental targets. We support ICAO's work, including fuel-efficiency standards for aircraft and its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). We also promote research into technology and materials to improve fuel efficiency and reduce emissions, such as those in development through the CFM RISE program and with more efficient flight planning.

As a major global company, GE Aerospace belongs to many industry associations, through which we engage in advocacy on a range of policy topics, including product safety, workforce development, and advancing more energy-efficient aviation technology.

We regularly meet with our major trade associations to review policy priorities and aim to be a force for positive action toward helping the global aviation industry meet its goals of putting safety first, decarbonizing, and connecting global economies.

Read more about our policy engagement work in our 2025 Sustainability Report.



Risk management

Enterprise risk management

GE Aerospace manages enterprise risk using a defined process, active leadership involvement, and robust governance practices.

Our enterprise risk management framework includes a multi-tiered holistic review with a quarterly cadence intended to inform our annual long-term strategy planning. Through this process, our senior management defines, identifies, and prioritizes top enterprise risks.

The foundational tier of our enterprise risk management framework is a working committee, comprising senior leader representatives from across the enterprise, co-chaired by the Chief Compliance Officer and Chief Risk Officer. This committee assigns business risk owners to key top risks, defines our company's risk profiles, and reviews risk tolerances and response strategies. Its output is brought to our Executive Risk Committee, comprising members of the SALT, co-chaired by the General Counsel, Chief Financial Officer, and Chief Compliance Officer. This committee provides additional oversight, approves risk tolerances, and escalates key risks to the Audit Committee and Board.

This structure drives accountability in our business, ensuring effective risk management practices. Ultimately, the Audit Committee oversees GE Aerospace's enterprise risk management framework. Both the Audit Committee and Board receive enterprise risk reports from the Chief Compliance Officer. Our governance principles and committee charters define the risk areas for which each committee has ongoing oversight responsibility. The Board, as a whole, focuses on the most significant risks facing the company.

Key GE Aerospace business leaders also meet regularly with the Board and Audit Committee to review their strategies and operations. This may include a review of their top risks and remediation strategies.

To read more on our enterprise risk management process, please see our 2025 Sustainability Report.

Climate assessments

We have assessed our transition and physical risks and opportunities through two focused qualitative climate-related risk assessments. The qualitative results of both assessments are detailed below.

Physical risk assessment

A global physical climate-related risks and exposures assessment was conducted in 2024 by a third-party specialist. The assessment used engineering data from site visits at selected locations and the latest climate insights to assess physical climate-related risks and exposures. We identified acute and chronic risks specified by weather and other events impacted by climate change according to different climate scenarios and timeframes, business interruptions, and outlooks for climate change impacts at specific locations. The assessment utilized the Representative Concentration Pathways (RCPs).

This physical climate-related scenario analysis covered two timeframes:

- *Medium term (by 2030)*
- *Long term (by 2050)*

Scenario descriptions (IPCC trajectory alignment)

RCP 2.6[19]	**Low:** Based on the RCP 2.6 scenario, the radiative forcing is limited to 2.6 W/m². Global mean surface temperature continues to rise but is projected to stay below 2°C above preindustrial levels by 2050. This scenario is considered the best case for limiting climate change impacts. It requires a major turnaround in climate policies and concerted worldwide actions to reduce GHG emissions drastically.
RCP 4.5[19]	**Intermediate:** The radiative forcing is limited to 4.5 W/m². Global mean surface temperature continues to rise and is projected to reach 2°C above preindustrial levels by 2050. This scenario assumes a stabilization of GHG emissions by 2050 and a decline afterward.
RCP 8.5[19]	**High:** The radiative forcing is assumed to increase up to 8.5 W/m². Global mean surface temperature continues to rise and is projected to exceed 2°C above preindustrial levels by 2050. This scenario represents the highest GHG emissions scenario.

19 RCP refers to Representative Concentration Pathways, as described by the IPCC in the sixth assessment report, found here.

GE9X engine.

Transition risk assessment

A climate-related transition risks and opportunities assessment was conducted between Q4 2023 and Q1 2024. This assessment was led by the Sustainability team with the support of external third-party specialists. As part of the assessment, a series of workshops with representatives and leaders from different functions across the company were hosted with the objective to refine and validate a process to identify and assess climate-related risks and opportunities.

The overall exercise included a qualitative climate risk assessment, including resilience, that considered two potential climate pathways covering a broad spectrum of outcomes to help consider risks and opportunities that may arise. Scenarios were built using publicly available data sources, including assessments and reports by the IPCC and the International Energy Agency (IEA) on climate emission pathways.

This climate-related transition risks and opportunities assessment analysis covers the following three timeframes:

- *Short term (2024–2025)*
  Aligned with TCFD recommendations for assessing impact of current state
- *Medium term (2025–2030)*
  Aligned to company goal of net zero carbon for Scope 1 and 2 operational emissions by 2030
- *Long term (2030–2050)*
  Aligned to the IEA climate scenarios timeframe

Scenario	Warming scenario (4°C to 5+°C warming by 2100)	Decarbonization scenario (1.5°C to 2°C warming by 2100)
Reference scenarios	IPCC SSP5-RCP 8.5, IEA Stated Policies Scenario (STEPS), NGFS Current policies	IPCC SSP1-RCP 2.6, IEA Net Zero Emissions by 2050 Scenario (NZE), NGFS Net Zero 2050
Overall trend	Climate change more pronounced Physical risks more prominent Adaptation required	Climate policy more pronounced Transition risks more prominent Mitigation required
GHG emissions rise	Emissions continue rising at current rates	Emissions are aggressively mitigated, reaching net zero by 2050
Temperature rise	2.4°C (4.3°F) by 2050 Warming up to ~4.4°C (7.9°F) expected by 2100, leading to an increase in chronic risks such as drought	~1.5°C (2.7°F) by 2050 vs. preindustrial levels Limiting warming to 1.5°C by 2100

Climate-related risks and opportunities

Physical risks could result from disruptions to our facilities and operations due to increased frequency and severity of extreme weather events, high temperatures, droughts, and sea level rise, while transition risks could result from industry transition to a low-carbon economy. The table below covers key identified risks and opportunities. For additional information on climate-related risk, see risk factors described in our SEC filings.

Physical risk	Description	Time horizon	Highest impact
Acute and chronic	Damage or disruption due to extreme weather events, for example extreme precipitation and sea level rise	2030–2050	Operations

Transition risk	Description	Time horizon	Highest impact
Policy	Regulatory requirements and compliance landscape	2025–2050	Downstream
Policy	Carbon pricing schemes	2025–2050	Downstream
Technology	Increasing demand for transitioning to lower-emission technologies, including shifts in consumer demand for air travel	2025–2050	Downstream
Technology	Limited availability of low-emission fuel	2025–2050	Downstream
Technology	Unsuccessful investment in new engine technology	2025–2050	Downstream
Market	Shifts in customer preference from GE Aerospace products toward competition as competitors make advancements in relation to implementation of low-carbon technologies	2025–2050	Downstream

Transition opportunity	Description	Time horizon	Highest impact
Market	Air travel market growth	2025–2050	Downstream
Technology	Successful new low-emissions engine technology	2025–2050	Downstream

Physical risk

Extreme precipitation often leads to flooding. Heavy precipitation events are becoming more frequent and intense in most regions of the world. Flooding could lead to property damage as well as business interruption due to disruption on site.

Strong winds can lead to property damage and internal damage to contents as well as business interruption due to disruption on site.

Increasing temperatures, including acute heatwaves, increases cooling demands at sites, resulting in increased OpEx costs and could result in reduced productivity due to impacts on human health.

Damage or disruption due to extreme weather events, for example extreme precipitation and sea level rise

Time horizon
2030–2050

Description
Potential damage or disruption to GE Aerospace sites and operations due to increased frequency and severity of extreme weather events.

Risk management
At GE Aerospace, we reduce potential risk at our global operations through property loss prevention plans, business continuity plans, energy-efficiency programs, and capital investments for maintenance and upgrades to our facilities to build resilience into our operational infrastructure.

Transition risks

Regulatory requirements and compliance landscape

Time horizon
2025–2050

Description
Our business may be impacted by climate change and governmental and industry actions taken in response, which present a variety of risks to our business and financial results.

Changes in environmental and climate-related laws or regulations, including regulations on GHG emissions, product efficiency standards, mandatory disclosure obligations, and U.S. government procurement requirements, could increase our operational and compliance expenditures and those of our suppliers, and could require new or additional investments in product designs and facility upgrades.

Risk management
While the Paris Agreement sets broader climate goals that encompass all sectors, the efforts of the International Civil Aviation Organization (ICAO) are more tailored to the unique challenges and requirements of the aviation industry, focusing specifically on mitigating the emissions from aircraft operations. We support ICAO's work on fuel-efficiency standards for aircraft and its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). We also promote research into technology and materials to improve fuel efficiency and reduce emissions, such as those in development through the CFM RISE program and with more efficient flight planning.

Find out more in our 2025 Sustainability Report.

Carbon pricing schemes

Time horizon
2025–2050

Description
Changes in environmental and climate-related laws or regulations could increase our operational and compliance expenditures and those of our suppliers, including increased energy and raw material costs and costs associated with manufacturing impacted by carbon pricing schemes. Carbon emissions schemes could become increasingly stringent in the future, particularly in a decarbonization scenario.

Risk management
We established Aerospace Carbon Solutions to catalyze progress in SAF and carbon removal credits, which will be essential to the industry achieving its decarbonization goals.

Additionally, we continue to make progress toward reducing carbon emissions in our facilities and operations through a strategy that focuses on three key levers:

- Infrastructure investments, operational optimization, and FLIGHT DECK Fundamentals to improve energy efficiency and engine acceptance testing fuel efficiency
- Sourcing carbon-free electricity
- Exploring the use of low-carbon fuels such as SAF at our engine testing operations

Increasing demand for transitioning to lower-emission technologies, including shifts in consumer demand for air travel

Time horizon
2025–2050

Description
We face, along with others across the aerospace and defense sector, increasing demand for transitioning to lower-emission technologies, including low- to no-carbon products and services, the use of alternative energy sources and other sustainable aviation technologies, and climate adaptation products and services.

Failure to respond to changing consumer preferences for lower-emission technologies, alternative energy sources, and other sustainable aviation technologies could result in reduced sales and loss of competitive advantage, potentially impacting revenue as well as our reputation in the market.

Risk management
Over the last decade, we have introduced new engines in virtually every market segment that offer double-digit fuel efficiency improvements compared to their predecessors. GE Aerospace's position as an industry leader gives us a unique responsibility to chart the future of flight. But we are not doing it alone, nor could we. We benefit from partnerships with peer companies, aircraft manufacturers, and government entities, all of which demonstrate the strength of our team and technology portfolio.

Building on four decades of investment that made our engines quieter and more efficient, GE Aerospace and Safran Aircraft Engines unveiled a bold technology development program in June 2021. The CFM RISE program will demonstrate and develop a range of disruptive technologies with several goals in mind.

Through these technologies, we are targeting future engines that are at least 20% more fuel efficient and generate 20% less carbon emissions than today's most efficient commercial engines, that are compatible with alternative energy sources such as SAF, and that meet customer expectations for durability and reliability.

In addition, GE Aerospace and partner engines can operate on 100% drop-in SAF once approved for commercial use. Drop-in means the fuel is equivalent to Jet A or Jet A-1, and it can be directly substituted without any modifications to engines and aircraft. It is therefore compatible with all the GE Aerospace, CFM International, Engine Alliance, and Honda Aero Engines power plants in service today, as well as other parts of the fuel distribution and storage infrastructure.

Working closely with producers, regulators, policymakers, and operators, GE Aerospace continues to drive the assessment and qualification of SAF, and advocate for incentives that will make SAF more available and affordable. As well as advocating for policies and initiatives that support availability and engaging with governments on policy and regulation development, we take a leadership role in many organizations, committees, and task forces that are working to approve new production pathways and standardize specifications.

Transition risks continued

Limited availability of low-emission fuel

Time horizon
2025–2050

Description
The achievement of aerospace and defense sector climate goals over the coming decades is likely to depend in part on technologies that are not yet deployed or widely adopted today. For example, emissions reduction over time will likely require a combination of changes such as continued technological innovation in the fuel efficiency of engines, expanded use of SAF, and the development of electric flight and hydrogen-based aviation technologies.

The risk of insufficient availability of low-carbon fuels (such as SAF or hydrogen) may compromise the pace and degree of emissions reduction.

Risk management
GE Aerospace continues to drive the assessment and qualification of SAF, and advocate for incentives that will make SAF more available and affordable. As well as advocating for policies and initiatives that support availability and engaging with governments on policy and regulation development, we take a leadership role in many organizations, committees, and task forces that are working to approve new production pathways and standardize specifications. One of our fuel experts chairs both the ASTM International committee that owns the industry's only synthetic aviation turbine fuel specification and oversees qualification of SAF pathways, and the ASTM task force standardizing 100% drop-in SAF.

To learn more about SAF and alternative fuels, please see our 2025 Sustainability Report.

Unsuccessful investment in new engine technology

Time horizon
2025–2050

Description
Our success in advancing climate objectives will depend in part on the actions of governments, regulators, and other market participants to invest in infrastructure, create appropriate market incentives, and otherwise support the development of new technologies.

The process of developing new high-technology products and enhancing existing products to mitigate climate change is often complex, costly, and uncertain, and we may pursue strategies or make investments that do not prove to be commercially successful in the timeframes expected or at all.

Risk management
GE Aerospace is focusing on collaborating with other industry participants on bringing into service breakthrough technologies in the mid-2030s to help achieve absolute emission reductions for the aviation sector's path to net zero.

With our collaborative work with Safran Aircraft Engines (the RISE program), NASA (Electrified Powertrain Flight Demonstration project and Hybrid Thermally Efficient Core program), we're able to stay at the forefront of our customers' needs.

For additional details, please see our 2025 Sustainability Report.

Shifts in customer preference from GE Aerospace products toward competition as competitors make advancements in relation to implementation of low-carbon technologies

Time horizon
2025–2050

Description
We also face risks as our competitors respond to advancing low-emissions technologies. Our competitors may develop these in-demand technologies before we do, their new technologies may be deemed by our customers to be superior to technologies we may develop, and their technologies may otherwise gain industry acceptance in advance or instead of our products. In addition, as we and our competitors develop increasingly low-emissions technologies, demand for our older offerings may decrease or become nonexistent.

Risk management
At GE Aerospace, we never stop innovating. As one of the world's largest suppliers of aircraft engines, systems, and services, GE Aerospace continues to lead the industry in developing technologies to reduce CO_2 emissions from flight. To that end, GE Aerospace spent approximately $2.7 billion on aviation research and development (R&D) in 2024,[20] including emissions-reducing technologies. Our R&D spend has contributed to the development of new technologies, as described for the risk above, which helps maintain our competitive position in the market.

For additional details, please see our 2025 Sustainability Report.

20 Amount represents research and development as reported in our 2024 Form 10-K and includes customer and partner funding.

CFM LEAP engine fan.

Opportunities

Air travel market growth

Time horizon
2025–2050

Description
The post-pandemic commercial aerospace recovery remains robust. The demand for new engines and aftermarket services continues increasing, powered both by the world returning to flight and airlines looking to expand and modernize their fleets. We continue to take actions to serve our customers as demand in the global airline industry increases. With a strong commitment to R&D, GE Aerospace is focused on inventing the future of flight, which can lead to improved sales and therefore increased revenue.

Response
Breakthrough technologies (e.g., Open Fan, hydrogen, hybrid electric) could generate opportunity through accelerated fleet replacement if GE Aerospace products are significantly more efficient than competitors.

Successful new low-emissions engine technology

Time horizon
2025–2050

Description
Advanced propulsion technologies, aircraft operations, and other specific advancements that are instrumental in helping our customers improve the efficient use of energy (fuel) in their future aircraft. We endeavor to support our customers by continuing to deliver more efficient engines and new forms of propulsion.

Response
Significant R&D investment, combined with our scale, provide opportunities to capitalize on low-emissions technologies.

To learn more about R&D investment, please see our 2025 Sustainability Report.

Task Force on Climate-related Financial Disclosures (TCFD) index

Disclosure Focus Area	Disclosure	Response
Governance		
Disclose the organization's governance around climate-related risks and opportunities	a) Describe the board's oversight of climate-related risks and opportunities.	TCFD Report: Governance—Board oversight of sustainability, page 7 CDP Corporate Questionnaire 2024: C4.1, C4.2
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	TCFD Report: Governance—Management oversight of sustainability, page 7 CDP Corporate Questionnaire 2024: C4.3, C4.5
Strategy		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.	TCFD Report: Risk management—Climate-related risks and opportunities, page 11 CDP Corporate Questionnaire 2024: C3.1, C3.6
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	TCFD Report: Risk management—Enterprise risk management, page 9 TCFD Report: Risk management—Climate-related risks and opportunities, page 11 TCFD Report: Risk management—Climate-related risks and opportunities, Physical risk, page 12 TCFD Report: Risk management—Climate-related risks and opportunities, Transition risks, pages 13–14 TCFD Report: Risk management—Climate-related risks and opportunities, Opportunities, page 15 CDP Corporate Questionnaire 2024: C5.1, C5.3, C5.4, C5.5
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	TCFD Report: Strategy, metrics, and targets, pages 3–6 TCFD Report: Risk management—Climate-related risks and opportunities, page 11 TCFD Report: Risk management—Climate-related risks and opportunities, Physical risk, page 12 TCFD Report: Risk management—Climate-related risks and opportunities, Transition risks, pages 13–14 TCFD Report: Risk management—Climate-related risks and opportunities, Opportunities, page 15 CDP Corporate Questionnaire 2024: C5.1, C5.3

Disclosure Focus Area	Disclosure	Response
Risk Management		
Disclose how the organization identifies, assesses and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate-related risks.	TCFD Report: Risk management—Enterprise risk management, page 9 TCFD Report: Risk management—Climate assessments, pages 9–10 CDP Corporate Questionnaire 2024: C2.1, C2.2, C2.3
	b) Describe the organization's processes for managing climate-related risks.	TCFD Report: Risk management—Enterprise risk management, page 9 CDP Corporate Questionnaire 2024: C2.1, C2.2, C2.3, C4.3
	c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	TCFD Report: Risk management—Enterprise risk management, page 9 CDP Corporate Questionnaire 2024: C2.1, C2.2, C2.3, C4.3
Metrics and Targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	TCFD Report: Strategy, metrics, and targets, pages 3–6 CDP Corporate Questionnaire 2024: C7.4, C7.6, C7.7, C7.8
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	TCFD Report: Strategy, metrics, and targets, pages 3–6 CDP Corporate Questionnaire 2024: C7.4, C7.6, C7.7, C7.8
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	TCFD Report: Strategy, metrics, and targets, pages 3–6 CDP Corporate Questionnaire 2024: C7.53, C7.54

Disclosure Focus Area	Disclosure	Response
Cross-Industry, Climate-Related Metrics		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities	GHG Emissions: Absolute Scope 1, Scope 2 and Scope 3; emissions intensity.	TCFD Report: Strategy, metrics, and targets, page 3–6 CDP Corporate Questionnaire 2024: C7.4, C7.6, C7.7, C7.8, C7.45, C7.50
	Transition Risks: Amount and extent of assets or business activities vulnerable to transition risks.	TCFD Report: Risk management—Climate-related risks and opportunities, Transition risks, pages 13–14 CDP Corporate Questionnaire 2024: C3.1, C3.6
	Physical Risks: Amount and extent of assets or business activities vulnerable to physical risks.	TCFD Report: Risk management—Climate-related risks and opportunities, Physical risk, page 12 CDP Corporate Questionnaire 2024: C3.1, C3.6
	Climate-Related Opportunities: Proportion of revenue, assets or other business activities aligned with climate-related opportunities.	TCFD Report: Risk management—Climate-related risks and opportunities, Opportunities, page 15 CDP Corporate Questionnaire 2024: C3.1, C3.6
	Capital Deployment: Amount of capital expenditure, financing or investment deployed toward climate-related risks and opportunities.	TCFD Report: Risk management—Strategy, metrics, and targets—Technology innovation, page 3 TCFD Report: Risk management—Strategy, metrics, and targets—Operations, page 5 CDP Corporate Questionnaire 2024: C5.3, C5.4, C5.5
	Internal Carbon Prices: Price on each ton of GHG emissions used internally by an organization.	CDP Corporate Questionnaire 2024: C5.10
	Remuneration: Proportion of executive management remuneration linked to climate considerations.	CDP Corporate Questionnaire 2024: C4.5

GE Aerospace