



ANNUAL  
REPORT  
2022











## Message from the MANAGEMENT



Francisco Gomes Neto

The year 2022 was marked by overcoming the challenges and uncertainties that have arisen on several fronts: the war in Ukraine, increased global inflation, and broad restrictions on the supply chain. These challenges led us to adjust internal processes throughout the year and, thanks to the focus and discipline of the entire team in the accomplishment of our strategic plan, we were able to deliver the goals planned for the year.

Compared to 2021, we increased aircraft delivery by 12.7% – from 141 to 159 Commercial and Executive aircraft in 2022. We also increased revenue by 8.2% to USD 4.5 billion. Adjusted EBIT and EBITDA margin (in USD) exceeded the guidance presented to the market, reaching 6.0% and 10.1%. Another highlight was free cash generation without EVE, which reached USD 540.1 million, quite above estimates.

The focus on improving business efficiency remains a key factor in achieving our goals and delivering better margins, even with supply chain constraints. Throughout the year, we implemented several mitigation measures, such as creating a special team to operate within the main suppliers' plants, developing alternative logistics routes, and improving internal processes to reduce production cycles. Also noteworthy are the efforts for continuous improvement of operational efficiency, such as inventory turnover management, restructuring of selection and procurement processes, and ongoing improvement of production processes.

The sales growth of our current product portfolio also excites us for the coming years. The backlog returned to the pre-pandemic level, reaching USD 17.5 billion. There are several ongoing sales campaigns that are progressing, both in Commercial Aviation, mainly the E2

family, as well as in Executive Aviation and the Defense area. Moreover, the diversification of business areas helped to compensate for the performance of a specific segment. In this way, the good performance of the Services & Support and Executive Aviation areas, as well as the increase in deliveries in Commercial Aviation, helped to offset the impact in the Defense & Security area.

At Commercial Aviation, we announced an additional order for Canada's Porter Airlines for 20 new E195-E2s, in addition to 30 existing firm orders. Porter even took delivery of the first E195-E2 jets operating in North America at the end of the year. We also announced an order from Azorra, a U.S. aircraft leasing company, for 20 new E2 jets, besides the expansion of our presence in the Middle East, with operator SalamAir from Oman ordering six E2s. In addition, the Chinese civil aviation authority has granted certification for our E190-E2, opening the doors of the relevant Chinese market for the E2 family.

Executive Aviation presented another year with outstanding results, with the delivery of 102 aircraft, "book-to-bill" above 1.8:1, and a higher gross margin than in the previous year. As a reflection of the good momentum of the business unit, Phenom 300 was voted for the 11th consecutive year as the world's best-selling business jet in the industry.

In Defense, we faced difficulties such as contract renegotiation and other factors that resulted in a 25% decrease in segment revenue. However, we are optimistic for 2023 as the current geopolitical scenario continues to influence countries around the world to review their plans and renew their armed forces. The main highlight of the year was the selection of C-390 Millennium by the Dutch Ministry of Defense as the only aircraft that meets the







requirements of its “Replacement Capacity Tactical Airlift” project, which provides for the acquisition of five tactical transport aircraft. Besides this, we announced with L3Harris Technologies a partnership to develop an “Agile Tanker,” a tactical aerial refueling option to meet U.S. Air Force operational guidelines.

The service and support business continues to post positive results, with a growing order book and positive gross margin. The growth was based on the expansion of the sale of materials (parts and support for special programs) thanks to a greater use of the Commercial and Executive Aviation aircraft fleet. The main driver of commercial aviation services were Pool Program contract renewals such as Blue and LOT Polish, as well as new customers, including Porter Airlines, Sky High Aviation Services, and Western Air, operator of the largest fleet of ERJs in the Caribbean. Another highlight is new contracts for more than 20 Breeze and Envoy Air Airframe Maintenance and Repair aircraft.

In the innovation pillar, we have taken an important step to cement our performance in the start-up urban air mobility industry (UAM), which should represent a great business opportunity in the coming years. In May, we completed Eve’s spin-off by listing the company on the New York Stock Exchange. With a full portfolio of solutions for the UAM market, an advanced electric vertical take-off and landing aircraft (eVTOL) design and a comprehensive global service and support network, Eve ended 2022 with 26 publicly announced customers, with potential orders for 2,770 vehicles valued at USD 8.3 billion, the industry’s largest backlog.

Regarding our journey to a low-carbon economy and more sustainable aviation, we announced the advances in the Energia Family program, which consummated the concept aircraft into two models with a capacity of 19 to 30 seats, both with hybrid electric and hydrogen electric propulsion. Furthermore, alongside Pratt & Whitney, we successfully tested a GTF-powered E195-E2 aircraft using 100% sustainable aviation fuel (SAF), the first step in the certification process to maximize emissions reduction with the use of sustainable aviation fuels.

We also project for 2024 our goal of using 100% renewable electricity in our facilities in Brazil, which account for about 70% of our total electricity consumption. In addition, we signed a memorandum of understanding with Raízen, of the Shell/Cosan group, to evaluate the sustainable aviation fuel (SAF) production market in Brazil – contributing not only to our emissions, but to the entire aviation industry in the country.

“ SINCE 2008, EMBRAER IS A SIGNATORY AND REAFFIRMS ITS COMMITMENT TO THE UN GLOBAL COMPACT. IN 2022, WE MOVED FORWARD ON OUR JOURNEY TOWARD A LOW-CARBON ECONOMY AND A MORE DIVERSE COMPANY WHILE MAINTAINING THE HIGHEST STANDARD IN CORPORATE GOVERNANCE. ”

Francisco Gomes Neto - President of Embraer

Lastly, it was with great joy that we received the “Great Place to Work” certification in several countries that we operate. For us, it is an important recognition to be celebrated, since we believe that engaged and passionate people achieve the best results and create a happy and healthy work environment.

For this year, despite persistent value chain constraints and global macroeconomic risks, we see a better outlook in terms of revenue and profitability. The aircraft slots on the production line for deliveries in 2023 and 2024 are almost completely filled, for both commercial aviation and business jets.

Therefore, adding our focus and discipline in business efficiency concerning innovation projects to ongoing sales campaigns in all business units, we are very confident in Embraer’s sustainable growth in this and the coming years.

Today we have a very comfortable cash position compared to previous years, a portfolio of top-notch products and services, and highly qualified people. We demonstrate commitment and discipline in accomplishing our strategy and resilience to meet the challenges ahead. Besides, we continue to advance strategic partnerships for the business.

I would like to end with a strong thank you to the Embraer team, which once again showed commitment and dedication to overcome the challenges, always keeping the focus on quality and safety, and also to our shareholders and customers for their trust in our company.

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Francisco Gomes Neto - President of Embraer

Alexandre Silva - Chairman of the Board of Directors



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About  
EMBRAER



ONE OF THE  
LEADERS  
in the aerospace  
and defense  
industry

GRI 2-1; 2-6

Embraer is one of the world's largest aerospace and defense conglomerates. On average, every 10 seconds an aircraft manufactured by the company takes off from an airport, annually carrying more than 145 million passengers around the world.

Leader in the segments in which it operates in the Commercial Aviation, Executive Aviation, Defense & Security, Services & Support markets and with more than 8,000 aircraft manufactured and delivered throughout its history, Embraer has been an exponent of innovation since its inception in 1969, and has in this strength its critical pillar for sustainable growth. Therefore, the company fosters an ecosystem of knowledge generation and dissemination that stimulates the quality training of its collaborators, increases the competitiveness of the aeronautical industry, furthers scientific development, and positively impacts the society as a whole.

At the end of 2022, Embraer's workforce was made up of 18,872 collaborators, of which 14,960 in Brazil and 3,912 abroad. The reported total includes OGMA employees.

145 MILLION  
PASSENGERS

ARE CARRIED ANNUALLY AROUND  
THE PLANET ON OUR AIRCRAFT

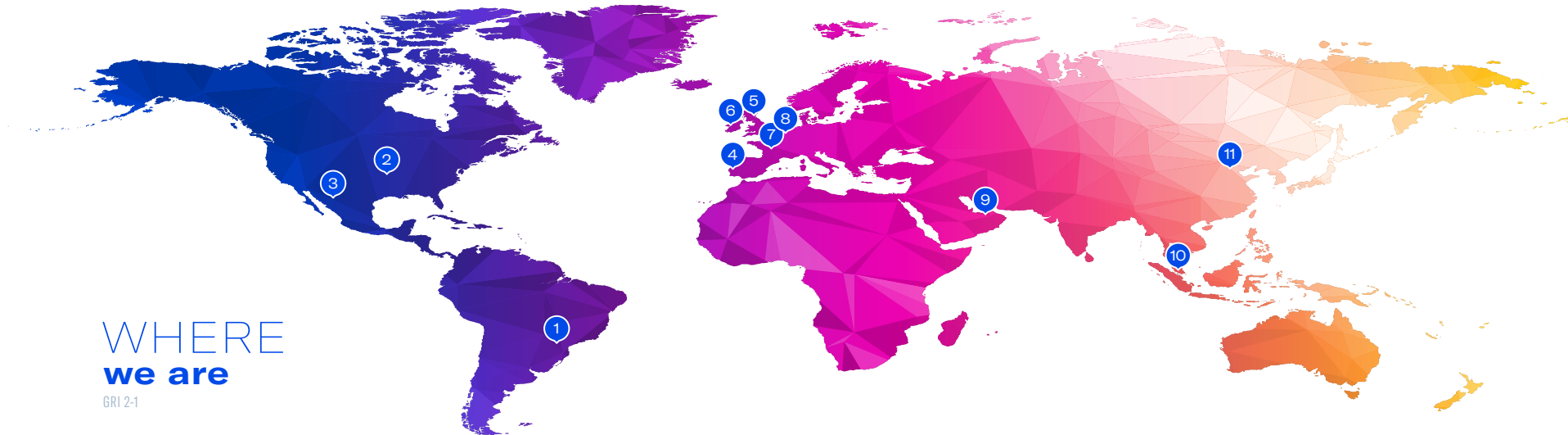
NET REVENUE   
US\$ 4,5  
BILLION

Embraer is the main exporter of high value-added goods in Brazil, with industrial operations, offices, service centers, and parts distribution in the Americas, Africa, Asia, and Europe.

Of total net revenue, Commercial Aviation accounted for 34%, Executive Aviation 27%, Defense & Security 10%, Services & Support 28%, and 1% of other related businesses.

At the end of the year, the portfolio of firm orders to be delivered reached USD 17.5 billion.





## WHERE we are

GRI 2-1

- 1
  - 2
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- 
- Brazil**  
 São José dos Campos  
 Gavião Peixoto  
 Botucatu  
 Taubaté  
 Brasília  
 Belo Horizonte  
 São Paulo  
 Rio de Janeiro  
 Sorocaba  
 Campinas

**Subsidiaries:**  
 Atech  
 Visiona  
 Tempest
  - United States**  
 Mesa  
 Nashville  
 Melbourne  
 Irwindale  
 Fort Lauderdale  
 Davies  
 Jacksonville  
 Memphis  
 Dallas

**Subsidiaries:**  
 Embraer Cae  
 Training Services  
 Eve
  - Mexico**  
 Chihuahua

**Subsidiary:**  
 EzAir  
 Interior
  - Portugal**  
 Alverca

**Subsidiary:**  
 OGMA
  - United Kingdom**  
 Farnborough

**Subsidiary:**  
 Embraer Cae  
 Training Services
  - Ireland**  
 Dublin
  - France**  
 Le Bourget
  - Netherlands**  
 Amsterdam
  - Arab Emirates**  
 Dubai
  - Singapore**  
 Singapore
  - China**  
 Beijing

## Our VALUES



Embraer's values were built collectively, involving collaborators around the world, and bring the deepest and most compelling view of what is in the company's business. They form a solid base, founded on ethics and integrity, from which Embraer will always develop science and technology, generating value for its customers, shareholders, collaborators, society, and other stakeholders.

ESSENCE

### Ethics and integrity are in everything we do

From the simplest activities to the greatest achievements. We follow the rules and question when necessary, always in search of what is right and best for society, for the company and for all.

### Boldness and innovation are our hallmarks

The forefront in technology, an organization that learns continuously, and has the capacity for innovation, for transforming inner reality and influencing the markets in which it operates. Strategic vision and capacity to overcome challenges, with creativity and courage.

### Our people are what make us fly

Happy, competent, valued, fulfilled people, committed to what they do. People who work as a team and act with integrity, coherence, respect, and mutual trust.

### Global presence is our frontier

Global presence and mindset, acting locally to leverage competitiveness, using the best of each location. Vision of a world without borders and of valuing diversity.

### We are here to serve our customers

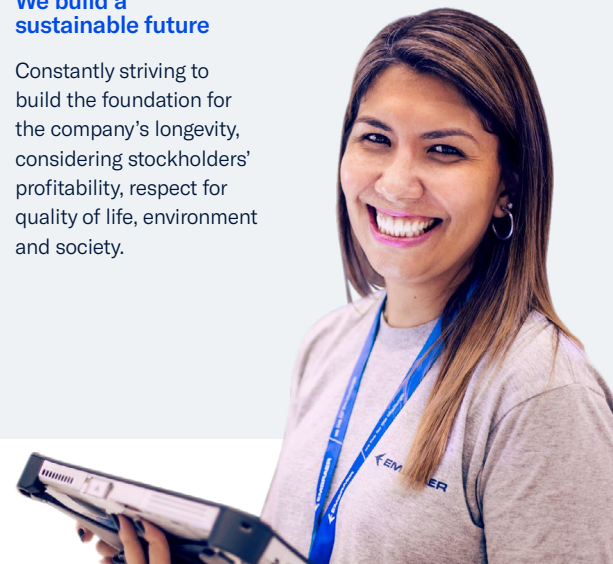
Winning the loyalty of customers by ensuring their complete satisfaction, and building strong and lasting relationships. Establishing partnerships, based on real commitment and flexibility.

### We build a sustainable future

Constantly striving to build the foundation for the company's longevity, considering stockholders' profitability, respect for quality of life, environment and society.

### We strive for company excellence

Corporate action designed for simplicity, agility, flexibility, and security, with a constant drive to continual improvement and to excellence. An entrepreneurial attitude based on integrated planning, responsible delegation, and disciplined execution.





## How did we get here?

### TIMELINE



1960

**1965** – Start of the IPD/PAR-6504 project, a light transport aircraft for military and civilian use, at the Aeronautics Technical Center (CTA), in São José dos Campos, State of São Paulo.

**1968** – Named Bandeirante, the aircraft performs its first flight.

**1969** – Embraer is created to further the development of the Brazilian aeronautical industry, with the initial activity being the series production of Bandeirante.

1970

**1970** – Start of flight testing of the Ipanema agricultural aircraft.

**1975** – First export. Uruguay receives the Bandeirante plane and the Ipanema agricultural plane.

**1978** – Brazilian Air Force (FAB) hires Embraer to develop the EMB 312 Tucano, a basic military training aircraft.

1980

**1983** – Presentation and 1st flight of EMB 120 Brasília, regional turboprop with capacity for 30 passengers.

**1985** – Presentation and 1st flight in Brazil of AMX, subsonic fighter developed in partnership with Italy.

**1989** – Start of the EMB 145 project, regional jet aircraft for up to 50 passengers.

1990

**1994** – Privatization of Embraer.

**1996** – First delivery of EMB 145, later renamed as ERJ 145. A new family of regional jets emerges.

**1999** – Pre-launch of the EMBRAER 170/190 program, a new family of business jets between 70 and 120 seats.





2001



2004



2005



2017



2018



2018



2019



2021



2022



2000

2010

2020

**2001** – Launch of PEE (Specialization Engineering Program), a master's program in partnership with ITA (Technological Institute of Aeronautics), as well as the Embraer Institute.

**2004** – Start of deliveries of jets of the EMBRAER 170/190 family, recognized worldwide as the E-Jets.

**2005** – Launch of the Phenom 100 and Phenom 300 jets. After a successful experience with the Legacy jet, Embraer reasserts its commitment to the Executive Aviation market, expands its portfolio, and expands its global customer support network.

**2017** – Creation of the Services & Support area, a new organizational structure dedicated to supporting Embraer aircraft operators and offering agnostic services.

**2018** – Presentation of Praetor 500 and Praetor 600 business jets. Start of deliveries of the second generation of E-Jets, the E2.

**2019** – Delivery of the first KC-390 to FAB. It is the beginning of the operations of the most sophisticated aeronautical project developed in Brazil.

**2020** – Performance of the plan to protect people and overcome the global crisis caused by the pandemic.

**2021** – Embraer strengthens its ESG commitment by introducing a group of sustainable initiatives, with goals of diversity, inclusion, governance, and emission reduction.

**2022** – IPO of EVE, the first company incubated by Embraer-X, and dedicated to accelerating the Urban Air Mobility (UAM) ecosystem.





# Fit for Growth & FINANCIAL PERFORMANCE



SECURITY

ONLINE SHOPPING

SOCIAL

GLOBAL

E-MAIL

NETWORK

LOCATION

SEARCH

SMART PHONE

SEARCH

## Fit for Growth & FINANCIAL PERFORMANCE

GRI 201-1

In 2022, Embraer exceeded the financial indicator forecasts disclosed at the beginning of the year: Adjusted EBIT, Adjusted EBITDA, and Free Cash Flow. Results that reflect better operational efficiency compared to previous years.

Compared to 2021, the company increased the delivery of Commercial and Executive aircraft by 12.7%, from 141 to 159 aircraft in 2022, posting a revenue of 8.2% (in USD) higher. Detailed results of the company's financial performance are available in the Management Report.

159 COMMERCIAL AND EXECUTIVE  
AIRCRAFT  
DELIVERED IN 2022



Learn more:

- [Financial Statements \(only in Portuguese\)](#)
- [Release of Deliverables and Backlog](#)



## OPERATING INCOME

In 2022, the adjusted result and operating margin (EBIT) were USD 270.3 million and 6%, respectively.

The increase of about 13% in the number of deliveries of Commercial and Executive Aviation, with a consequent increase in its revenues, the increase in average prices coupled with a more favorable product mix and cost control measures largely explain the better profitability posted in 2022 vis-à-vis 2021.

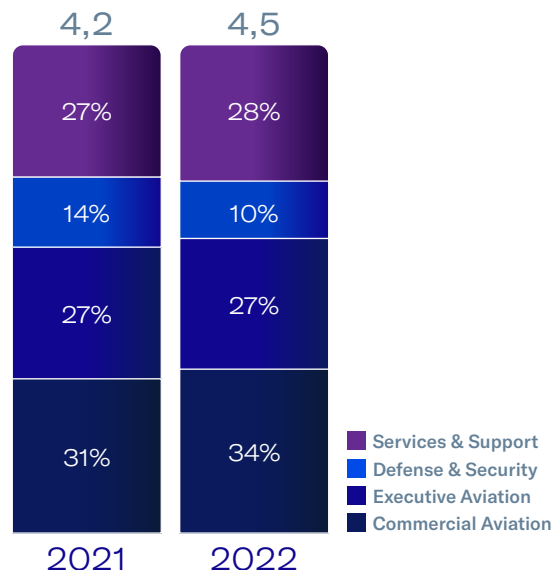
Embraer's shares have been listed on the Novo Mercado Listing of the São Paulo Stock Exchange (B3) since 1989 and on the New York Stock Exchange (NYSE), through the level III American Depositary Receipts (ADRs) program, since 2000.

At the end of 2022, Embraer's shares traded on B3 - EMBR3 - were quoted at BRL 14.31, a 42% devaluation compared to BRL 24.82 at the end of 2021. The American Depositary Shares (ADSs) listed on NYSE - ERJ - reached a price of USD 10.93, accounting for a devaluation of 38% compared to USD 17.75 in the previous year.

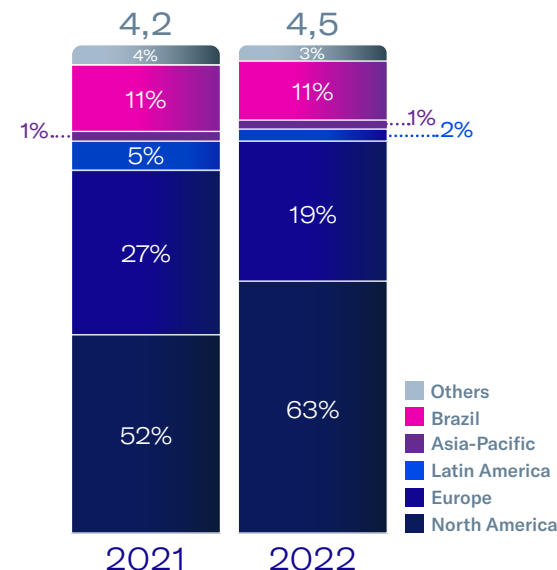
## TOTAL NET REVENUE

US\$ 4,5 BILLION  
8.2% higher (USD) than in 2021

Revenue by Segment  
Net Rev. USD Billion



Revenue by Region  
Net Rev. USD Billion



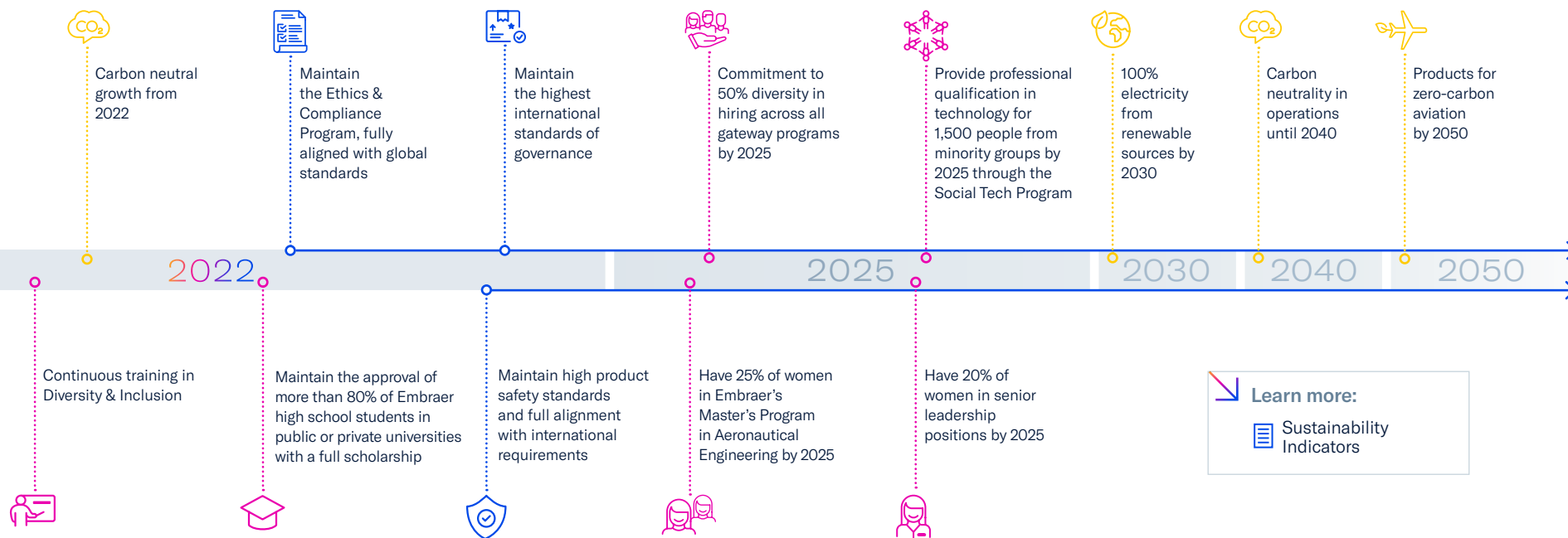
**Commitment to**  
THE FUTURE



Embraer maintains its sustainability strategy and planning, announced at the end of 2021, with long-term ESG goals. Focused on decarbonizing aviation through the development of more sustainable products, services, and technologies, as well as strengthening its historical performance in social responsibility, the company advanced and, in 2022, its goals evolved and achieved concrete results on several fronts.

- E / Environmental
- S / Social
- G / Governance

GRI 2-22; 3-3; RT-AE-410a.2



[Learn more:](#)

Sustainability Indicators



# ENVIRONMENTAL Commitment

## RENEWABLE ENERGY

In 2022, the company signed a power purchase agreement that ensures that 100% of the electricity acquired by Embraer in Brazil is from renewable, wind, and solar sources, starting in 2024.

With this agreement and the acquisition of Renewable Energy Certificates (RECs), Embraer will zero its Scope 2 carbon emissions in Brazil one year earlier than announced in its corporate goal.

Electricity consumption in its operations in Brazil accounts for about 70% of the total consumed in all its operations around the globe. In 2022, assessments and discussions were also started with the teams in Portugal and the United States so that, by 2030, 100% of the electricity consumed by Embraer will be from renewable sources in all its operations worldwide.

**Learn more:**  
 Sustainability Indicators

## CARBON NEUTRALITY

Embraer focuses on three main actions to achieve carbon neutrality of its operations by 2040. They are:



Energy efficiency  
of its operations



Use of 100% electricity from  
renewable sources



Increased use of SAF\* on test  
and demonstration flights

\*Sustainable Aviation Fuel

As concerns energy efficiency and use of electricity 100% from renewable sources, in 2022 several initiatives were implemented, with special emphasis on:

### Solar heating installation at the Gavião Peixoto unit

The installation of solar panels at the Gavião Peixoto unit was carried out with a view to supplying heated water to its restaurant. The photothermal solar panel is a highly efficient and widely used technology in Brazil, capable of converting sunlight, an infinite and free source of energy, into heat. Estimates are that this project will reduce each year approximately 40,000 m<sup>3</sup> of natural gas consumption and avoid the emission of about one hundred tons of carbon (CO<sub>2</sub>e) into the atmosphere.

Practices similar to this have already been implemented at the Ozires Silva and Eugênio de Melo units in Brazil, and are strategically linked to Embraer's emission reduction targets.

### Changes in processes and automation of machines at the Ozires Silva unit

Two relevant efforts were implemented at the Ozires Silva unit to reduce electricity consumption:

- One of them was dedicated to reviewing the process of heat treatment of metal parts manufactured in the company, which occurs in a large air furnace and requires large amounts of power, especially when starting the device's use. At no cost and with a potential reduction of up to 218 MWh of electricity per year, they represent around sixteen tons of avoided carbon emissions.
- And the other consisted in creating a strategy of automatic activation and disconnection of the machining machines. This initiative required a change in the operating logic of the machines and implies a reduction in annual electricity consumption of up to 145 MWh per year, avoiding the emission of, on average, ten tons of carbon into the atmosphere.

### Installation of photovoltaic panels in the Ede unit

The Embraer Equipment Division (EDE), a unit dedicated to the manufacture of landing gear in São José dos Campos, São Paulo, received the installation of photovoltaic solar panels in one of its administrative buildings. This technology is capable of transforming sunlight into electricity, and estimates are that power thus generated will be sufficient to supply the building, producing around 42 MWh, potentially avoiding up to ten tons of carbon in the atmosphere per year.

### Use of biomethane gas in the Gavião Peixoto unit

In 2022, the company implemented a pilot project to replace natural gas (non-renewable source) with biomethane in several production processes at the Gavião Peixoto unit. Biomethane is a renewable source gas, generated in the process of decomposing organic matter.

Comparative analyses of the performance of equipment and systems were carried out, with a positive outcome that will serve to replicate the project in other units and production processes.

Regarding the use of SAF, the goal is to account for 25% of total fuel use by 2040. As the production of SAF in Brazil is still zero, Embraer initiated a process for procurement of this product in the United States, for Melbourne site operations\*.

#### Purchase of SAF cargo

In July 2022, Embraer and Raizen (a global bioenergy company) signed a Letter of Intent with the commitment to further the development of the sustainable aviation fuel production ecosystem – SAF, thus reaffirming the sustainability agenda of both companies.

Among all intentions, Embraer seeks to become the first company to use this fuel to be produced in Brazil, which may be distributed by Raizen. This initiative benefits the air transport industry worldwide, and the use of this type of technology is a pivotal part of Embraer's strategy regarding carbon neutrality in operations until 2040.

Learn more:

- Purchase of SAF cargoes



## ADVANCES TOWARDS ZERO-CARBON AVIATION

Embraer plans, for 2026, its fully electric and zero emission vertical take-off and landing vehicle, the eVTOL, which will be able to transport passengers through cities, transforming urban mobility. As for Commercial Aviation, the company intends to make the first flight of its hydrogen-electric demonstrator by 2025.

Another step towards more sustainable aviation is the next-generation turboprop program. In early stages of development, and

100% SAF-compliant, this aircraft is destined to revolutionize the industry, reducing CO2 emissions by up to 15% compared to others in the industry. In current projections, the company predicts that the new turboprop will start operating in 2028.

By 2045, the first flight of Embraer's hydrogen-powered turboprop is expected to occur. For 2050, the goal is to have E2 powered by hydrogen or similarly sized aircraft soaring to the skies.



Learn more:

- eVTOL
- Energia Family







E195-E2 IS THE MOST  
**SUSTAINABLE**  
 aircraft in its category

## EMBRAER'S E195-E2 AIRCRAFT IS THE QUIETEST AND MOST EFFICIENT IN THE WORLD

Operating on short- and medium-haul routes, E195-E2 is the most efficient aircraft on the market, and considered the most sustainable in its class, with a 25% lower fuel consumption than the previous generation, and 17% lower emissions.

E2 has the lowest external noise levels and longest maintenance intervals in the single-aisle jet category: 10,000 flight hours for basic checks and no time limit for typical E-Jets operations. This means an additional fifteen days of use over a ten-year period compared to the current generation.

As the aircraft consumes less fuel, it has greater flight range while being 50% quieter and emitting up to one-third less carbon dioxide. The economy of E195-E2 coupled with its comfort allows the operator to increase capacity and delight their customers.


 **Learn more:**  
 Aircraft E2


## SOCIAL Commitment

GRI 405; 3-3

Embraer seeks to be a plural and human company that respects the individualities of each collaborator. Valuing characteristics and behaviors, the company praisés that every human being is part of a process, and always seeks to offer the necessary support for its collaborators to perform their assignments with a sense of belonging.

With a focus on the inclusion and representativeness of all people, and efforts directed at minority or underrepresented groups to be part of the company in a genuine way, Embraer has corporate goals for Diversity & Inclusion and makes this a cornerstone of its culture.

 Learn more:

 Sustainability Indicators



## TALENTS

Inspired by all the learning gathered over the critical period of the Covid-19 pandemic, 2022 saw the implementation of new work models, focusing on the hybrid model, in which part of the professionals work in person and part remotely. The company realized the need to support its leaders and collaborator, so that this adaptation was efficient, changing new behaviors into new habits.

### » THE FUTURE OF WORK

In 2022, the company created a global project entitled “Future of Work,” managed based on an Agile methodology (based on the Scrum framework) with weekly sprints, and engaging more than 50 collaborators, who represented Embraer’s major areas.

Diagnostics and adjustments were made in different processes to improve the experience of collaborators, who were working 100% remotely or hybrid, in addition to guiding their leaders in the management of teams and supporting the business needs in the face of changes in the current corporate world.

The concept of asynchronous communication (non-simultaneous communication) has been implemented as a capital point of mindset change within the company, being essential for hybrid work, fostering transparency, and avoiding excessive meetings and interruptions.

The project made the company review new work scenarios that, connected to the business vision, the pillars of culture and the expectations of collaborators, allowed to build an adaptive and bold work model.

### » TALENT ATTRACTION AND RETENTION

GRI 401-1

For Embraer, attracting and retaining the best talent are primary goals. In 2022, Embraer had more than two thousand and seven hundred vacancies filled. The company carried out an active search for the best candidates, especially on the LinkedIn platform, in addition to being present at fairs and career events at institutions such as ITA (Technological Institute of Aeronautics), POLI USP (Polytechnic School of the University of São Paulo), UFMG (Federal University of Minas Gerais), and other relevant universities in Brazil, thus advancing the selection process with interviews and simultaneous hiring. This selection process model, called selection sprints, resulted in swift hiring for various positions in production and production support areas.

Alongside the personnel of Talent Acquisition, Information Technology, Medical Team, and Payroll and with the support of an external partner, the company mapped the journey of the new Embraer collaborator, in order to assess the possibilities of improving the hiring process. With this initiative, newly hired collaborators and leaders were interviewed with the purpose of better understanding customer experience, using Design Thinking techniques for interview and user journey.



» WORKING MODELS

**ON-SITE:** Five days in person (productive areas and production support)

**HYBRID:** On-site + Remote (up to two days in person)

**100% REMOTE:** Five days remote

Based on these three models, the company tested and validated the foundations of Future of Work, such as updating employment agreements, how to offer infrastructure services such as food and transportation, as well as issues of home-office allowance and assistance during the pandemic.

» GATEWAYS, INTERNSHIPS, AND YOUNG APPRENTICES

GRI 404; 405; 3-3

In 2022, Embraer’s Internship Program filled five hundred vacancies in two cycles and is expected to fill another three hundred vacancies in the first half of 2023, with a new cycle of applications for candidates from all over Brazil. In addition, the Summer Internship was also launched, with thirty vacancies and a duration of two and a half months with opportunities in several areas, and in face-to-face, hybrid, or 100% remote work models.

Embraer, in concert with Senai (National Service for Industrial Training) for young apprentices, opened new classes in 2022, with about two hundred participants in the São Paulo cities of Gavião Peixoto, Botucatu, and São José dos Campos. It also maintained the partnership for FORMARE, a professional qualification program aimed at young people in situations of economic and social vulnerability, earmarked for logistics students in the city of Gavião Peixoto.

Also in 2022, the first class of the Software Specialization Program – PES was formed. Held in partnership with UFPE (Federal University of Pernambuco), this is a Non-Degree Graduation Program in Embedded Software and Data Science, with subjects taught by professors from UFPE and with the participation of Embraer professionals.

Overall, forty collaborators attended Data Sciences subjects, and fifty-one collaborators took the subjects on Embedded Software. In December 2022, the class was concluded with the approval of the thirty-five professionals, thirty-three of whom were hired by Embraer.

Embraer’s goal is to draw the new generation of aviation talent and provide candidates with great convenience and experiences, in a diverse and inclusive environment, so that each professional becomes the main player in their own development and career.



» GPTW CERTIFICATION

Embraer has been recognized as one of the best companies to work in a survey performed by Great Place to Work®, a global consulting firm that supports organizations to achieve the best results through a culture of trust, high performance, and innovation.



The GPTW Certification was launched in Brazil in 1997 as a seal that recognizes organizations that develop a work of excellence with their collaborators.

One of the highlights in the survey was Embraer's contribution to society. Leader of an industry deemed strategic owing to the cutting-edge technology it develops, the company gathers talents with high capacity to generate innovations with positive impacts on the economy.

» LEADERSHIP ACADEMY

In 2022, the company carried out continuous actions for the development of its leaders. Within the "Leadership Academy"\* topics were worked on Culture, People Cycle, Business, Future of Work, and Diversity. For the Future of Work topic, the company combined efforts to customize a global training on hybrid management for supervisors and managers. Senior leaders were also trained to be facilitators of this topic for new leaders.



Learn more:

Talent Management

» EMBRAER CULTURE

In 2022, the company made important advances in the evolution of its culture. All company's leaders and collaborators participated in training and a number of engagement and communication efforts, which prompted reflection and strengthened the movement of change for an increasingly integrated company, with diversity and inclusion, focused on results, agile and efficient. The leap in this evolution could be quantified through the engagement survey, carried out in concert with Great Place to Work. In just one year, the company had an increase from 72% to 78% in overall favorability in relation to the topic, in the perception of more than 8,000 collaborators worldwide.

GRI 404: 3-3

All new company leaders also undergo training, which includes understanding all company processes, people management, and culture. In 2022, there were three classes of new leaders.

The portfolio of training performed in 2022 is extensive and covered specific training on Diversity and Inclusion, Culture, Compensation, Confidential Processes, and Communication, the latter focusing on "communicate to lead." Overall, there were one hundred and sixty-six training classes for leaders, totaling almost five hundred hours of training.

\* Development program in management, leadership, and innovation.





## DIVERSITY & INCLUSION

GRI 405; 3-3

Embraer values the history and particularities of people, so it always seeks to build diverse teams, with initiatives aimed at the inclusion of underrepresented groups. Within the company, it is important that all people are represented, both in the staff and especially in leadership positions, regardless of their characteristics.

### Social Tech

GRI 401; 404; 405

reated in 2021 in partnership with the Institute of Management and Information Technology (IGTI) with a view to fostering the professional qualification of minority or underrepresented groups. In its first edition, Social Tech had as participants people with disabilities and, in 2022, the program continued, this time aimed at black people, with more than ten thousand candidates for a thousand vacancies. Throughout the course, which provided two hundred and forty-four hours of study, students learned to work with the Python programming language, which has applications in data science, artificial intelligence, and automation, through the bootcamp methodology\*. Participants make up the talent pool of Embraer and partner companies in future selection processes. Besides being relevant to the market, Social Tech is a program that integrates the company's affirmative actions.

\*Type of immersive training destined for the development of important skills in several areas.

Course with  
**244 HOURS**  
IN PYTHON PROGRAMMING  
LANGUAGE.



## EMpower Women

GRI 401; 404; 405

Embraer has the corporate goal of having 20% of women in the company's senior leadership by 2025. To pave the way for such achievement, the company created, in 2022, the Women's Training Program with a focus on accelerating the development of their careers.

This training takes place within the company's corporate training platform, which provides continuous development programs and training for the entire company. The program's first class will start in February 2023.

Learn more:

Ecosystem Accelerating Careers

» Embraer participated in the 33rd Annual Conference of Women in Aviation (WAI) in Nashville, USA, and the 34th Conference of the International Association of Women in Aviation (IAWA) in Lisbon, Portugal.

Both events aimed to further, support, discuss, and expand the presence of women and their careers in this mostly male segment, globally.



In 2022  
**16% OF  
WOMEN  
HELD MANAGEMENT  
POSITIONS**

» EMBRACE

GRI 404; 405

Embraer's voluntary, collaborator-driven affinity group or ERG (Employee Resource Group) created in 2019 to welcome underrepresented groups and diversity, equity, and inclusion agenda in the company. Through actions and initiatives structured around the commemorative dates for these groups, throughout the year, the agendas raised by Embrace were addressed.

At Embraer Brasil, the groups represented by the program are:

- Women
- Persons with Disabilities
- Black People
- LGBTQIA+ people



» 1ST INTERNATIONAL WOMEN'S CONGRESS ON STEAM

Embraer participated in the 1st International Congress of Women in STEAM (Science, Technology, Engineering, Arts, and Mathematics), held at the Technological Park of São José dos Campos, São Paulo. The event, organized alongside professors from the Technological Institute of Aeronautics (ITA), aimed to strengthen the connections among scholarship, industry, and political agents to internationally further initiatives targeted at Science, Technology, and Innovation (ST&I) that rely on the performance of women. During the congress, Embraer and Embraer-X presented an interactive exhibition on women working in the company's innovation, engineering, and technology areas.

## WORKER SAFETY AND HEALTH

GRI 403; 3-3

At Embraer, safety always comes first, whether in the products offered or in the operations carried out. The company has a set of prevention practices to protect collaborators from occupational risks and accidents, providing a safe and healthy work environment, with the best conditions for everyone to perform their tasks.

Occupational safety indicators are assessed monthly under the supervision of the company's leaders, both in organizational visibility meetings with the boards and in Board of Directors' meetings.



A new Integrated and Cooperative System, which includes Global, Regional, and Local Management, was created in 2022, aiming at synergies so that all data and information is treated more actively and objectively, integrating the work of all units of the company around the world.

Seeking to increase the well-being of the team that operates in the company's operations, Embraer invested in innovation and purchased its first exoskeletons, robotic equipment that help the human body to develop certain tasks, in addition to assisting in human joints. Dressing the equipment brings support to movements and reduces the need for human strength, collaborating with the team's safety and ergonomics.

\*Environment, Health and Safety.



Learn more:



Sustainability Indicators

### » SAFE ENVIRONMENT PROGRAM

Present at Embraer since 2018, the program aims to address occupational safety with preventive data that can be contributed by anyone, whether collaborators, contractors or visitors. The insertion of information happens via cell phone or computer through QR Codes spread throughout the company. Any and all unsafe situations spotted by any person should be reported through the program, for latter handling and resolution in the shortest possible time.

In this manner, the company maintains a tracked database with all reported situations and their resolutions, thus being able to act in the prevention of accidents and incidents, making the environment always safe.

In 2022, the process of unifying platforms of this program began, making it even more agile and robust.

### » WELL-BEING PROGRAM

GRI 403

The Well-Being Program contributes to a better quality of life for active collaborators, direct dependents, and interns. In order to reduce health risk factors, the program encourages the practice of beneficial habits and provides facilitating means in order to introduce a healthier lifestyle into daily life. In 2022, twenty-seven thousand people were impacted by the vaccine benefit, including collaborators and their dependents.



## CORPORATE SOCIAL RESPONSIBILITY



For more than 20 years the Embraer Institute has supported education in Brazil to build a fairer and more inclusive country, maintaining two full-time high schools for students from public schools and low-income households in São José dos Campos and Botucatu, in the State of São Paulo. To them, a contingent of paying students (20% of the total student body) is added, reaching a total of 800 students in 2022.

The resumption of face-to-face school classes was one of the high points of the year 2022. With this, new programs were launched, such as the 1st edition of the Embraer Institute of Science and Technology Olympiad, targeted at furthering the interest of elementary and high school stu-

dents in Science & Technology, in addition to fostering social inclusion through a healthy competition that generates knowledge.

In addition, the schools achieved a remarkable result of students approved in the entrance exam, with 75% of approval in public or private universities with scholarship.

Another major initiative of the Embraer Institute revolves around the response to climate emergencies. The Institute joined the campaign to donate necessity goods, integrating into the hall of organizations that sent aid for the floods that struck the state of Pernambuco in 2022, serving more than 1,000 people of the area's vulnerable population.

## » VOLUNTEER PROGRAM

The Asas do Bem volunteer program mobilized collaborators, who presented the factories of São José dos Campos, Botucatu, Eugênio de Melo, and Sorocaba to students, contributing to the dissemination of aeronautical culture in the regions where Embraer conducts business. In 2022, 440 students visited the company's production units.

Since the start of operations in 2001:

**+8 THOUSAND PEOPLE**  
IMPACTED BY THE ACTIONS OF  
ENGAGEMENT WITH SOCIETY

**+4 THOUSAND STUDENTS**  
GRADUATED FROM EMBRAER SCHOOLS

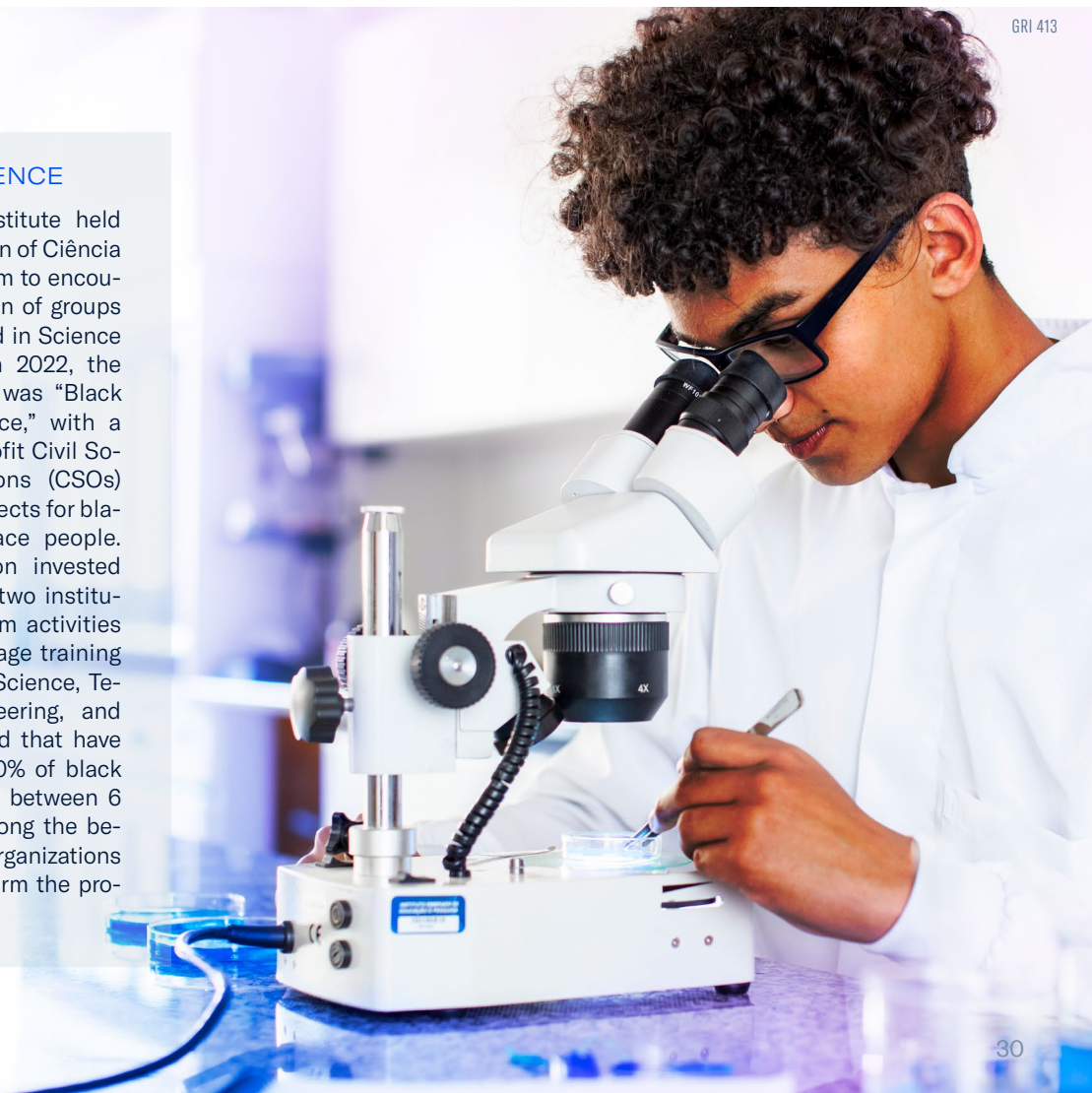
**75%<sup>of</sup> STUDENTS**  
APPROVED AT TOP UNIVERSITIES

Learn more:

Sustainability Indicators

## » DIVERSE SCIENCE

The Embraer Institute held the second edition of Ciência Diversa, a program to encourage the formation of groups underrepresented in Science & Technology. In 2022, the topic addressed was “Black People in Science,” with a focus on non-profit Civil Society Organizations (CSOs) that develop projects for black and mixed-race people. The social action invested BRL 380,000 in two institutions that perform activities aimed to encourage training in STEM areas (Science, Technology, Engineering, and Mathematics) and that have a minimum of 60% of black people and aged between 6 and 24 years among the beneficiaries. The organizations chosen will perform the projects in 2023.





» EMBRAER FOUNDATION

In order to cement its corporate social responsibility strategy in the United States, Embraer created in 2016 the Embraer Foundation, sister organization of the Embraer Institute, which operates on three fronts: volunteering, social and environmental partnerships, and entrepreneurship.

The pillars are aligned with the Company's global social responsibility strategy and respect the particularities of social investment in the United States.

In 2022, more than 400 volunteers engaged in the social activities developed by the Foundation, totaling about 3,300 hours. In the partnership pillar, 40 organizations received support from the Embraer Foundation to carry out projects.

**IN 2022**  
**40**  
**ORGANIZATIONS**  
**RECEIVED SUPPORT**  
**FROM THE EMBRAER**  
**FOUNDATION**  
**TO CARRY OUT**  
**PROJECTS**

Learn more:  
 [Embraer Foundation](#)





## Commitment to GOVERNANCE

Embraer seeks to ensure the highest level of corporate integrity and ethics in all its businesses. The corporate governance model adopted has a business management focused on sustainable growth, meeting the highest Brazilian and international market standards.

### » RANKING FIRST IN GOVERNANCE

In 2022, Embraer S.A. ranked first in corporate governance in the survey of the Época Negócios 360° Yearbook, which aims to identify and disseminate the best business practices in Brazil. Conducted in concert with Fundação Dom Cabral, the ranking recognizes the best in each of the six dimensions of the survey – financial performance, corporate governance, innovation, people, sustainability, and vision for the future.

The 2022 edition of the yearbook presented a record number of registrations, with four hundred and twenty participating companies divided into twenty-five sectors, and recognized the company's Corporate Governance practices, which are established to the highest international standards.



## ETHICS AND COMPLIANCE

GRI 3-3; RT-AE-510

Embraer's Compliance Program initiatives are based on risk assessments, which serve as a starting point for strategic planning applied to the program's pillars. The purpose of strategic compliance planning is to ensure that all initiatives are aligned and incorporated into the company's operations, according to the risk assessment carried out.

### » COMPLIANCE PROGRAM GOALS

1 To foster a culture of ethics and integrity based on Embraer's Values and Code of Ethics and Conduct, as well as the anti-corruption laws applicable to the company.

2 To support Embraer's other departments in preventing risks, spotting red flags, and improving processes.

### » COMPLIANCE PROGRAM PILLARS

- Corporate Governance
- Risk Management
- Policies and Procedures
- Training and Communication
- Helpline
- Monitoring and assessment of compliance risks
- Compliance in relationships with Third Parties
- Audit and Continuous Improvement

### » KAIZEN & OFFICE FLOOR MANAGEMENT

The Kaizen philosophy – which means continuous improvement in Japanese – is already adopted by Embraer in its production processes, and is now also part of its Compliance Program. This is the first administrative area of the company to work on a pilot project called Compliance Office Floor Kaizen, which was conducted in three of its main processes: Due Diligence, Know Your Customer, and Hospitality.

### » FLY RIGHT

New tool, which had its initial implementation in 2022, and will have the other implementation phases carried out in 2023, and centralizes the Compliance processes in a single platform, optimizing the approval flows, activity management, monitoring and addressing of risks in the company.

## » TRAINING CARRIED OUT IN 2022

The following trainings were provided by the Compliance area during the 2022 accounting year:

- **Compliance Processes – (refresher):** (Hospitality, Gifts, Events, Due Diligence, Know Your Customer, Risk Assessment, Monitoring, Red Flag & Blocklist, Donations, Sponsorship, Helpline, Membership) – Taught to Compliance Officers and also Agents, Ambassadors, and Requesters, as applicable;
- **OFAC (Office of Foreign Assets Control) Training** – For Compliance Officers, Agents, and Ambassadors;
- **Anti-Corruption Compliance Training** – Taught by the law firm Maeda Ayres & Sarubbi to the Compliance team of Embraer S.A. and group companies, in addition to the Helpline investigation team;
- **Bribery and Corruption:** Doing Business in High-Risk Countries  
**Target audience:** the entire leadership of Embraer S.A.;
- **Ethics & Compliance Management Program:** A Story  
**Target audience:** the entire leadership of Embraer S.A.;
- **Bribery and Corruption:** A Story About Global Bribery  
**Target audience:** the entire leadership of Embraer S.A.;
- **Conflicts of Interest** – Managing and resolving conflicts of interest involving gifts and gratuities in business  
**Target audience:** the entire leadership of Embraer S.A.;
- **Compliance Training for the Board of Directors and Executive Board's members** – taught by a lawyer specialized in FCPA.

## » THINK AND RETHINK

New edition of the Compliance communication campaign for 100% of collaborators. In 2022, the main topic revolved around raising awareness on the use of the whistleblowing channel – the Helpline – encouraging collaborators to identify the situations in which the use of the channel is recommended.

## » COMPLIANCE DAY

Held on the week of the international anti-corruption day, December 9, for 100% of collaborators, the event was attended by members of Embraer's Board of Directors and Executive Board, as well as external guests, experts in FCPA\*, and the Brazilian Anti-Corruption Law.

The lectures and roundtables highlighted the challenges, trends, and future of Compliance both in the aerospace industry and in other sectors of the economy and facilitated the interaction among collaborators and speakers.

\* Foreign Corrupt Practices Act - The United States Corrupt Practices Act, which is considered the pioneering anti-corruption law abroad and came into force in 1977.





## OPERATIONAL SAFETY AND PRODUCT QUALITY

### » IMPLEMENTATION OF THE SAFETY MANAGEMENT SYSTEM (SMS)

In 2022, Embraer actively participated in the review and development of the SM-0001 standard, focused on operational safety, contributing to the implementation of SMS\* for the entire aeronautical industry around the globe. In the company, SMS was firstly implemented in all its U.S. maintenance units, and the implementation of SMS for OGMA\*\* maintenance units in Portugal was finalized. As a result, all the company's European maintenance units are already able to meet the new regulations of EASA – The European Aviation Safety Agency, which will be mandatory by the end of 2024.

In Brazil, the company joined forces with ANAC – National Civil Aviation Agency to devise the Brazilian operational safety regulations for the aeronautical industry.

\*SMS is a global, systematic, and standardized approach to managing operational safety risks for the aeronautical industry.

\*\*Aeronautical Industry of Portugal

### » OGMA SAFETY SUMMIT

The OGMA Safety Summit – Conference on Safety Management System – gathered in Alverca, Portugal, four experts from the areas of Safety and Quality to address topics of Operational Safety. Among professionals, specialists and the OGMA team, the event had about one hundred participants, from twenty-seven entities of the aeronautical community.

### » II OPERATIONAL SAFETY AND QUALITY WEEK 2022

For the second year in a row, Embraer joined the themes of Operational Safety and Quality in a single week dedicated to discussing with external experts, the senior leadership of the company and collaborators, success cases, challenges, and trends for these two capital topics for the aeronautical industry. The event was online and open to 100% of collaborators, and all content is available for reference on the intranet, further affirming the company's culture of safety and quality.





INNOVATION



## INNOVATION

Embraer believes that collaborative innovation is the best way to co-create the future, adding value to all its stakeholders and society. The efforts seek to contribute in a relevant way to the technological advances of Brazil and the markets in which it operates. In practice, Embraer's evolution and innovation journey is carried out every day through the commitment of collaborators and networking taking the whole ecosystem into consideration, i.e., partners, government, universities and research institutions, suppliers, startups, and customers.

Within this perspective, once again the company's innovative profile stood out on the Brazilian scene. The company was one of the highlights of the 2021/2022 edition of the National Innovation Award, an initiative of the Business Mobilization for Innovation (MEI), carried out by the National Confederation of Industry (CNI), and the Brazilian Micro and Small Business Support Service (SEBRAE).

In the award, held to encourage and recognize the efforts of institutions that operate in the Brazilian innovation ecosystem, Embraer won in the "Product Development" category, "Large Companies" modality.

In 2022, about 46% of the company's revenue came from innovations that occurred over the last five years. Investment in technological development and innovation remained stable, on the order of 5% of annual revenue.

IN 2022, ABOUT

46%

OF THE COMPANY'S  
REVENUE CAME FROM  
DEVELOPMENTS  
MADE IN THE LAST  
FIVE YEARS.



## AWARDS



### » NATIONAL INNOVATION AWARD

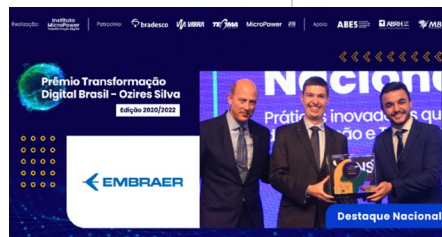
The Brazil's largest innovation award, conducted to encourage and recognize the efforts of institutions operating in Brazil: 1st place in the product innovation category with the case of Eve Urban Air Mobility.

### » AWARD VALOR INOVAÇÃO BRASIL 2022

In its 8th edition, Embraer ranked as the third most innovative company in Brazil and the first in the Capital Goods Sector.

### » BRAZIL 5.0 DIGITAL TRANSFORMATION AWARD 2022

National highlight with the project "Leveraging Digital Transformation in Products and Talents" organized by Manifesto & Prêmio 2022, which furthers the development of projects for Innovation and Digital Transformation of Processes and Business Models.



## HIGHLIGHTS



### » DESIGN SYSTEM PLATFORM [DS]

Development of a standard library of design, objects, colors, text sources, and active components that allow software development teams to create prototypes and solutions with significant time and cost savings, while keeping designs standardized with the brand's visual identity.

### » INCEPTION OF THE INNOVATION LAB

Place that allows fast execution of tests and prototypes, which has methodologies and tools supported by the Product Design concept.

### » EMBRAER INNOVATION ECOSYSTEM PORTAL

Launched in 2022, the portal furthers governance, programs, events, content, pages, and news pertaining to innovation at Embraer, maximizing the company's global innovation potential through integration and greater visibility of structuring actions.

## INNOVATION Verticals

The Innovation Verticals are Innovation priorities under study by Embraer. In 2022, the highlight is the advance in the Business agenda of Zero Emission and Autonomous Flight Verticals, especially the direct investment in XMobots by Embraer Ventures.

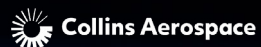
In addition, in 2022 two new Verticals were approved for Incubation: Cybersecurity and Passenger Experience.

### VERTICAL ZERO EMISSION

Embraer and Collins Aerospace are collaborating on the development and testing of an innovative electrothermal heating technology based on carbon nanotubes (CNT) for ice protection systems.

This electrothermal CNT technology is more energy-efficient, lighter, and uses greener manufacturing processes than current systems, and the company believes it will become the future standard for ice protection – including in more electric aircraft designs.

The new solution was successfully installed in the vertical stabilizer of a prototype Phenom 300E\*. Collins' CNT heater and anti-icing system underwent about ten hours of ground testing and "dry air" flight. In 2022, the project reached an important milestone by starting a flight test campaign at the Gavião Peixoto unit, São Paulo.



## » ZERO EMISSIONS STARTUP DAY



Embraer has concluded its first “Start-Up Day” with a view to encouraging startups with the most cutting-edge technologies to join the sustainable flight initiative of the Energia Program. The company’s goal is to select organizations to partner with the Energia Program, develop technologies with the greatest potential to address the challenges of the climate crisis, considering that startups have a significant role in overcoming certain challenges.

At the first meeting, held in 2022, sixteen organizations from around the world introduced their technologies to

the Program team, each focusing on one of four critical areas: electric and hybrid powertrain, fuel cells, hydrogen storage, and battery technology.

Embraer is connected and works closely with agile innovators, and believes that the growth of the ecosystem of small startups with technology experience has a huge contribution to make – when the opportunity is offered. The event drew relevant organizations from around the world, including France, Germany, the Netherlands, South Korea, the United Kingdom, and the United States.

Embraer believes that some of the technologies needed for aviation have not yet been developed, and that it is essential to harness all the talent available in the world to find answers that work, are accessible and practical in the real world.

The quality of interactions and the potential capabilities of the technologies presented drove the company to plan more events such as Start-Up Day, including other areas of interest such as design projects aimed at sustainable cabin, connectivity, ground handling, clean power generation and more.

## » HYDROGEN FUEL CELL DEMONSTRATOR

With the first flight scheduled for 2025, the company has advanced the conceptual design of the aircraft. Based on the Ipanema platform, in 2022 the project made an important advance in its technical feasibility.



Learn more:


[Energia Program](#)



## PARTNERSHIPS FOR R&D & INNOVATION

### » CPQD CAMPINAS & EMBRAPII

The partnership with CPQD Campinas (Telecommunications Research and Development Center) and EMBRAPII (Brazilian Industrial Research and Innovation Company) for the research on high-voltage batteries applied to aeronautics. The purpose is to allow that Embraer further develops batteries applied to the aeronautical production system.

### » FAPESP

Partnership with FAPESP (São Paulo State Research Foundation) to research recycling and disposal of high-voltage batteries.

### » ITA & FAPESP

Partnership with ITA (Technological Institute of Aeronautics) and FAPESP (São Paulo State Research Foundations), with a shared investment of BRL 48 million over the next five years in an Engineering Research Center (CPE) for the air mobility of the future, based on three pillars: low carbon aviation, autonomous systems, and advanced manufacturing. In 2022, the institutions jointly described the scope of research and the main activities to accomplish the partnership that proposes innovative technological solutions that will enhance the competitiveness of the global innovation ecosystem.



### » WIDERØE E ROLLS-ROYCE

Embraer, Widerøe, and Rolls-Royce have announced plans to study a zero-emission concept regional aircraft. The twelve-month cooperative study – in the context of pre-competitive research & development – will address the demands of passengers to stay connected, in a post-covid-19 world, in a sustainable way, in addition to seeking to accelerate the technological knowledge required for such transition.

New technologies will allow countries to continue to support passenger mobility, while reusing most existing infrastructure in a more sustainable fashion. Advances in scientific research could make clean, renewable energy a major catalyst of a new era of regional aviation.

Among other topics, the research will cover a wide array of new propulsion technology jobs, to assess various potential solutions – including all-electric aircraft, hydrogen fuel cell aircraft or hydrogen gas turbine-powered aircraft.

## VERTICAL AUTONOMOUS FLIGHT

In 2022, Embraer announced the agreement to invest in XMobots, a company located in São Carlos, São Paulo that is the largest drone company in Latin America. The deal aims to accelerate the future of the mid- and large-size autonomous drone market and broaden the collaborative network in research into new technologies.

A series of experimental helicopter flights in Rio de Janeiro focused on assessing new autonomous system technologies in real flight conditions and complex urban environments were also completed.



Learn more:

- Experimental Flights
- XMobots

## VERTICAL ARTIFICIAL INTELLIGENCE

The company made significant strides with innovative initiatives in artificial intelligence and data science in 2022. A key achievement was the preparation and alignment of the corporate data strategy with the vision of making Embraer a company capable of yielding more and more value from the information generated by its systems and processes. To support such a change, improvements pertaining to people and culture were made, including new careers for data professionals. In December, the company fulfilled the first class of the Software Specialization Program for training new data scientists.

From a technological standpoint, the company launched its research portfolio in artificial intelligence, focusing on embedded applications for increased flight safety and machine learning algorithms for predictive maintenance, capable of generating great value for customers.

Learn more:

- Software Specialization Program

## INNOVATION CULTURE

With the challenge of stimulating the generation of new ideas and solutions, as well as fostering the culture of innovation throughout Embraer, the company opens opportunities for the development of innovative projects and calls for Innovation Strategy programs and actions.

### » INNOVA PROGRAM

Created to disseminate culture and foster innovation to every collaborator who is willing to seek innovative solutions. Besides, it stimulates the generation of ideas in the company through Innovation Challenges.

#### • *Green Light:*

Entrepreneurship program that assesses innovative proposals presented voluntarily by collaborators. The program provides technical and business guidance, leadership engagement, time and resources for them to realize ideas until their technical and economic viability is proven.

#### • *Innova Challenge:*

Internal crowdsourcing mechanism that stimulates ideas to solve problems globally from different departments of the company. Its 10th edition in 2022 was marked by the launch of the Agro Innovation Challenge, focusing on solutions and technologies earmarked for the agricultural industry.

#### • *Innovation Day:*

Initiative to spread culture and foster innovation, bringing a collaborative environment and the opportunity for different institutions to discuss future trends at a global level. In 2022, in its 6th edition, the event was attended by more than 2,800 people and included the launch of Embraer's first Hackathon, with the development of integrated solutions between processes and applications for ten pain points of each of the vice-presidencies, and collection of more than 150 kilos of food with the solidarity ticket. Additionally, participants were asked to wear fun t-shirts or cosplay costumes to attend the event.



## INNOVATION CULTURE

### » CYCLE OF INNOVATION VERTICALS

To optimize Embraer’s investments in innovation, priorities were established through the Innovation Verticals. Annually we carry out the Vertical Cycle through the Innovation Forum, bringing together executives from the various areas of the company to follow up the evolution of these priorities and decide on the approach in the coming years. To compose the Vertical cycles, the following information is considered:

• **Emerging Technologies:**

Map of technologies necessary to meet new and future products.

• **Aerospace Industry Trends:**

Consolidating the knowledge generated in the market intelligence areas of the different Business Units.

• **Business Trends:**

It considers business trends inside and outside the Aerospace, Defense, and Venture Capital markets.

### » EMBRAER STARTUP PROGRAM

With the purpose of gathering several areas of the company to join backgrounds and efforts to solving problems, Embraer Startup Program was implemented as a means to recruit startups within up to 5 business days.

The Program brings the potential of external entrepreneurs to the company for challenges and needs of diverse sorts, ranging from technical product issues to those more of a process or management character.

The democratization of collaboration with startups is one of the ways to accelerate innovation at Embraer, recognize internal and external talents, and boost efficiency.

In November 2022, the first edition of the Marathon was held, a competition between startups to solve previously mapped demands, including a face-to-face event and interaction among ecosystem players.



Embraer's disruptive innovation arm is a group company focused on the future of air mobility, clean energy, among other topics, with a view to fostering and structuring new business opportunities. Embraer-X is committed to sustainability principles in the development of its business and operations.

In 2022, Embraer-X established itself as a market accelerator committed to developing solutions that change life experiences, and dedicated to collaborating with global innovation communities.

Among the news of 2022, Embraer-X strengthened relations with the Netherlands, opening an office at the Aerospace Innovation Hub@TUD, of the Delft University of Technology (TU Delft).

Embraer-X's strategic position in the Aerospace Innovation Hub@TUD will serve as the basis for continuously connecting to the institution's business ecosystem, which involves startups, test facilities, and spin-offs, facilitating collaboration between professionals and researchers from both organizations.

#### » WEB SUMMIT LISBOA 2022

Embraer-X also participated for the first time in Web Summit Lisbon 2022, one of the world's largest technology and innovation events, with two panels at the Apex Brasil Pavilion, where the impacts and new opportunities created by the digital revolution for the mobility segment were discussed. At the event, it presented the journey of adoption of technologies and form of digital work by Embraer, including the decision to create Embraer-X itself, and the incubation of new businesses.





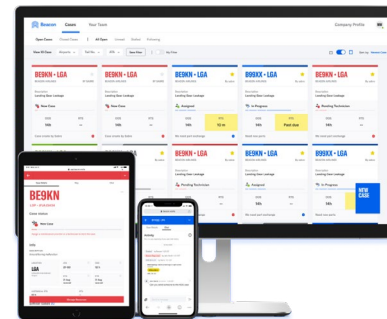
Incubated by Embraer-X, the Beacon is a maintenance coordination platform for faster return to operation. Innovative, it is designed to connect and synchronize industry, supply chain and aviation service professionals resources in a more agile and efficient way to keep aircraft in operation.

The platform is primarily focused on providing solutions for unscheduled aircraft maintenance. Through an easily accessible digital web and mobile application (IOS and Android), Beacon's main goal is to connect businesses and professionals in a revolutionary way. The technology triggers a network of accredited suppliers, prompting real-time collaboration during maintenance activities not initiated, accelerating the return to aircraft operation.

In 2022, Beacon formed a working group with ELMS Aviation, a leading provider of Competency Ma-

nagement software services. This collaboration aims to test a fully integrated solution for managing aeronautical maintenance profiles with a complete Competency and Compliance check to solve the growing need to find qualified and specialized professionals.

This partnership will bring more transparency, security, and trust to the platform, as Beacon wants to empower teams and individuals with tools that can deliver the best return to their customers' operation.



In December 2022, Embraer-X signed a contract with Pulse Aviation to use the Beacon. Headquartered in Florida, Pulse is a business aviation company that provides maintenance, repairs, and operations. The company intends to use Beacon to improve maintenance coordination, simplify communication about maintenance events for all aircraft models, and increase team collaboration, thereby improving knowledge exchange and streamlining maintenance-related workflows.





An Embraer Group company for eVTOLs (vertical takeoff and landing aircraft), Eve had its shares listed on the New York Stock Exchange under the symbol “EVEX” in 2022.

In order to go public, Eve merged with Zanite, a special-purpose acquisition aviation company (SPAC).

Eve also signed a letter of intent with FlyBIS, an advanced air mobility startup based in Caxias do Sul, Rio Grande do Sul, for cooperation in the development of eVTOL operations in Brazil and South Ameri-

ca. FlyBIS will purchase up to 40 eVTOL vehicles from Eve.

The partnership with FlyBIS has made it possible to expand the future of air mobility to the Southern Region of Brazil and to other countries in South America.

FlyBIS vehicles are included in Eve’s market-leading backlog, which currently has an order backlog for up to two thousand seven hundred and seventy eVTOLs.



FLYBIS TO BUY UP TO  
40 EVE  
eVTOLs



Learn more:



Eve Air Mobility







# BUSINESS **Units**

## COMERCIAL Aviation



IN 2022  
**19** E2 FAMILY  
AIRCRAFT  
WERE DELIVERED



AND ALSO  
**38** AIRCRAFT OF  
THE E1 FAMILY

### Learn more:

- Financial Statements (only in Portuguese)
- Release of Deliverables and Backlog

Embraer's E2 family of aircraft enables airlines to increase operational adaptability, match capacity to demand, and add frequencies. In 2022, nineteen aircraft of the E2 family and thirty-eight of the E1 family were delivered.

In 2022, the E190-E2 aircraft received its Type Certificate from the Civil Aviation Administration of China (CAAC). The company's latest market forecast revealed that one thousand four hundred and forty-five new aircraft in the category of up to one hundred and fifty seats will be delivered to China by 2041, driven by the country's long-term economic development and the continuing trend of the Chinese civil aviation system to evolve from peer-to-peer to a hub-and-spoke-based network\*.

\*On hub-and-spoke routes, airlines choose a particular city to be the distribution center for their flights, causing passengers to change planes at the airport.

### » FLYING WITH 100% SAF

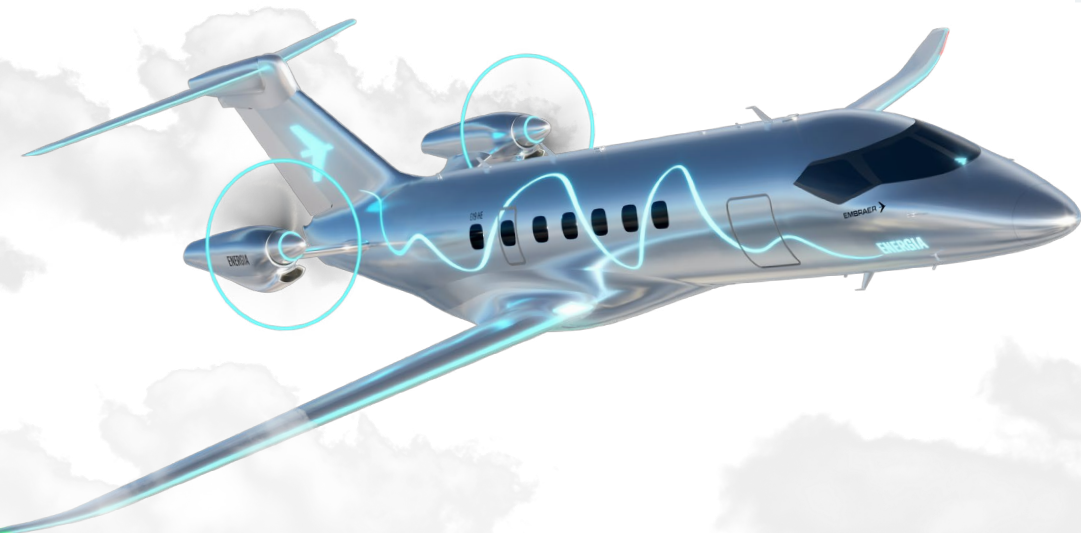
In June 2022, Embraer conducted a successful test with 100% SAF engines on the E195-E2 aircraft, proving that GTF engines and the E2 E-Jets family can fly with this fuel without compromising safety or performance. The aircraft completed two days of ground testing at Fort Lauderdale International Airport in Florida, followed by another seventy minutes of flight testing at Vero Beach Regional Airport in Florida. Future fuel specifications will enable blends of up to 100% SAF to boost the potential for reducing carbon emissions.



## ENERGIA PROGRAM

In December 2022, Embraer shared new advances in the Energia Program, the company's initiative to zero pollutant emissions in the aviation industry by 2050.

A year after the Sustainability in Action event, which unveiled the study of four new aircraft concepts powered by new technologies and renewable energy, the company has focused on two nineteen- to thirty-seat projects for hybrid electric and hydrogen-electric propulsion. The research has been developed based on Embraer's fifty-year technical experience, external contributions from airlines, and joint studies with engine manufacturers. The two projects offer a real and feasible path to zero carbon emissions.



### » HYBRID ENERGY (E19-HE E E30-HE)

Announced in 2021 with nine seats, Embraer now explores a nineteen and thirty-seat version with:

- Parallel hybrid-electric propulsion
- Up to 90% reduction of CO2 emissions when using SAF
- 19- and 30-seat versions
- Engines at the rear
- Technological readiness – early 2030

### » FUEL CELL POWER (E19-H2FC E E30-H2FC)

Announced with nineteen seats in 2021, Embraer is studying a thirty-seat version with:

- Hydrogen hybrid propulsion
- Zero CO2 Emissions
- 19- and 30-seat versions
- Electric motors at the rear
- Technological readiness – 2035

Still in the evaluation phase, architectures and technologies are being analyzed for technical and commercial feasibility. The Energia Program Advisory Board was also launched to harness the contributions and collaboration of partner airlines, with the aim of making development more assertive.

#### Learn more:

- New concept of Energia Family
- Energia Program

## EXECUTIVE Aviation

Embraer is creating the future of Executive Aviation today, using industry-leading innovation, design, and technology, while incorporating new partnerships to deliver the best experience in the industry.



Embraer reached a historic milestone in 2022: the Phenom 300 series jets became the best-selling category models in the world for the eleventh year in a row, and the most delivered twin-engine jet of the previous year, according to figures released by the General Aviation Manufacturers Association (GAMA), a United States association that brings together manufacturers in the industry. Embraer delivered fifty-six Phenom 300 series jets in 2021 and fifty-nine in 2022, cementing product excellence for a decade and market dominance. The Phenom 300 series has an average of fifty aircraft delivered per year since it entered the market in December 2009.

In 2022, after demand for business jets recovered strongly compared to the previous year, the Business Aviation market continued to post sharp growth. Embraer's activity level remained high, reaching record levels in sales, backlog, and utilization.

PHENOM 300 SERIES  
JETS  
ARE THE WORLD'S BEST-SELLING JETS FOR THE  
ELEVENTH CONSECUTIVE YEAR



Learn more:

-  Financial Statements (only in Portuguese)
-  Release of Deliverables and Backlog

## 2022 HIGHLIGHTS

In May, Embraer announced that Flexjet is the first Legacy 500 customer in the world to install the Ka Band, which offers fast connection, as an after-sales modification, to its business jet fleet in Europe. This new feature is also available, via a service bulletin, for Legacy 450, Legacy 500, Praetor 500 and Praetor 600 business jets. Ka-band provides high-speed internet access, allowing multiple devices to be connected at the same time. Installation of this feature is also offered direct from the factory, as an optional item, for the Praetor 600 and Praetor 500.

In the third quarter of 2022, Embraer delivered its 1,600th business jet, a Phenom 300E, on July 7, to U.S. charter operator Keystone Aviation. This impressive feat has been achieved in twenty-two years, while the industry average for reaching this milestone is thirty-four years. The Phenom 300E is

very attractive to the charter market and is recognized and requested by customers for its emphasis on comfort, technology, and performance.

In the fourth quarter, Embraer and FlightSafety International announced a new Full-Flight Simulator (FFS) for the Praetor 500 and Praetor 600 business jets in order to meet the growing demand for training these models. The simulator, which is the third for these business jet models designed by FlightSafety International, will be based in Or-

lando, Florida, to serve the fleet of more than two hundred aircraft on the Praetor platform. Operations will begin in the second quarter of 2023. The new flight simulator will provide Embraer customers with the latest technological updates to the aircraft, bringing the highest level of service to market.

With the 2022 results, Embraer celebrates eleven years of leadership in the light jet segment with Phenom 300, the fastest jet in production certified for operation with only one pilot

and the most delivered twin engine of the year. A market leader, the model offers best-in-class features in cabin range, speed and pressurization, and stands out for its unique technology and unprecedented comfort.

At the end of 2022, Embraer has more than 1,600 aircraft in operation and more than 1,000 operators and customers present in more than sixty-five countries. Executive Aviation's firm order backlog ended the year at USD 3.9 billion (34% higher) and its Net Revenue reached USD 1.2 billion.

EXECUTIVE AVIATION  
ENDED 2022 WITH A  
NET REVENUE OF  
**US\$ 1,2  
BILLION**





## EMBRAER EXECUTIVE CARE PROGRAM



Embraer Executive Care, which turned sixteen in 2022, is an aircraft maintenance program carefully designed and managed by Embraer to provide a simple and predictable way to budget aircraft maintenance costs.

Over a five-year cycle, the benefits of the program include savings over the actual costs of scheduled and unscheduled events in the same timeframe, providing protection against price tolerance and ease of doing business with Embraer and its partners. In addition, the company offers preferential prices for customers registered in Executive Care for various services.

During the edition of LABACE 2022, the largest business aviation event in Latin America, Embraer and Avantto signed a contract for the Embraer Executive Care Program to support the company's fleet of executive jets. Leading in the field of aircraft sharing in Brazil, Avantto currently has a fleet of seven Phenom jets, four of the Phenom 100 model and three of the Phenom 300 model. Currently, more than 700 aircraft are part of Embraer Executive Care globally.

## PARTNERSHIP WITH VOAR



Embraer announced a partnership with VOAR Aviation with a view to offering unscheduled services to Embraer's Executive Aviation customers at Congonhas Airport in São Paulo. Thus, the company continues to strengthen its component maintenance, repair and overhaul (MRO) and Fixed Base Operator (FBO) operations to meet the growth of Executive Aviation in Brazil.

The partnership with VOAR occurred two months after Embraer opened the new hangars of the Sorocaba Service Center, in the State of São Paulo, thus doubling its useful area. The unit, which completed eight years of operation in March 2022, now has four hangars, three of them dedicated to MRO and one to FBO.

## PORTFOLIO

The current portfolio includes:

- the entry level Phenom 100EV jet;
- the last decade's most designed light class, Phenom 300E;
- the Praetor 500 medium jet;
- and the super-midsize Praetor 600.

Both with the best combination of technology, performance, and comfort. Customers appreciate Embraer's global network of services and support.

The company markets business jets to companies, including fractionally owned charter flights, air taxi, individuals and flight clubs, both independent and those belonging to airlines and armed forces.



Learn more:



Executive Aviation Portfolio

**PHENOM® 100EV**  
BY EMBRAER



**PHENOM® 300E**  
BY EMBRAER



**PRAETOR 500**  
BY EMBRAER



**PRAETOR 600**  
BY EMBRAER



Powered by  
**SUSTAINABLE**  
AVIATION FUEL


## ESG INITIATIVES

### » PURCHASE OF THREE SAF CARGOES

Used in the demonstrator fleet. This action directly contributes to the reduction of the company's Scope 1 emissions and is connected with the global goal of having carbon-neutral operations by 2040.

### » ISSUANCE OF FOLS

*(FLIGHT OPERATIONS LETTER)*

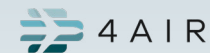
Certifying that it is safe and appropriate to use SAF on aircraft. This document is an important action for the awareness raising and furtherance of this biofuel among customers.

### » STUDIES FOR COMPATIBILITY OF AIRCRAFT USING 100% SAF

With the goal of certifying them by 2030.



## FREE CARBON OFFSET



Embraer and 4AIR entered into a partnership in May 2022 to grant carbon emissions compensation for the first twenty-five hours of business jet flight to new customers who enroll in the Executive Care Program. This offset will occur free of charge during the first year of aircraft ownership.

After completing the twenty-five hours of flight through the Care Executive Program, Embraer customers will be able to continue

their commitments to fight climate change through participation in 4AIR's programs. The starting twenty-five hours are at Level 1 of 4AIR (Bronze), which credits 100% of carbon dioxide emissions.

Customers will be able to choose to continue participating in this level, increase their commitment to becoming carbon neutral or reduce emissions through measures such as changes in the operation or use of SAF.





## Embraer DEFESA & SEGURANÇA

Embraer Defense & Security is a leader in the Aerospace and Defense Industry in Latin America. The company's solutions are available in more than sixty countries, and continue to expand into the global market.

In 2022, the Brazilian Area Force (FAB) received its fifth KC-390 Millennium aircraft. The fleet accumulates about eight thousand flight hours and almost six thousand cycles, with an outstanding maturity level (operational reliability above 99.5%).

The negotiation of adjustments to the serialization agreement, an effect of the country's economic moment, was successfully concluded, quelling the possibility of further unilateral reductions: the nineteen aircraft contracted preserve the company's cash flow, and ensure the program's economic and financial feasibility – the strategic partnership between Embraer and FAB goes on strong and healthy.

KC-390 MILLENNIUM  
OPERATIONAL  
RELIABILITY  
ABOVE

99,5%





The KC-390 program continues to progress smoothly. New capabilities were added in 2022, with emphasis on operation on gravel tracks, and firefighting system. The Portugal setup is in the testing/certification phase, was presented to the customer in Beja in October 2022, and will be delivered in 2023. The first Hungarian aircraft is already in production, in the structural assembly phase.

On the international stage, the Dutch government announced the decision to purchase five C-390 Millennium aircraft to replace its fleet of C-130 Hercules. After thorough technical and economic assessment, the Embraer product was

considered much superior to all competitors in the category. The Dutch Air Force's public report, considered to be of high technical competence, represented a seal of quality for C-390, and yielded an immediate increase in global market interest.

In addition, even in the midst of the pandemic, Embraer signed a new contract for the sale of A-29 Super Tucano aircraft. Deliveries are planned for 2023.

Highlight in the streamlining programs was the delivery of the fourth E-99 AEW&C aircraft to FAB – the fifth and last aircraft of the contract will be delivered in 2023.

## PARTNERSHIPS



In 2022, Embraer Defense & Security set up important new partnerships, with emphasis on:

- Memoranda of Understanding signed with BAE Systems, which establish a partnership between the two companies for global sales efforts of the C-390, and to collaborate on the development of a military use variant of eVTOL.
- Eve Air Mobility has announced a Letter of Intent with Embraer and BAE Systems to explore the potential order of up to 150 eVTOLs for aircraft application to the Defense & Security market.
- Embraer announced the Memorandum of Understanding (MoU) with South Korean aerospace companies, with a view to a future supply of parts for the C-390 Millennium, which competes in the Large Transport Aircraft II program.
- Embraer and L3Harris Technologies have announced a partnership to develop the “Agile Tanker,” an agile tactical aerial refueling aircraft based on KC-390 Millennium, to meet U.S. Air Force operational guidelines and Joint Force requirements.

## RADARS &amp; TERRESTRIAL SYSTEMS

The year 2022 was a great success for the Radar & Terrestrial Systems business.

The First Phase of the SIS-FRON Program was fulfilled by the effective implementation of more than 1,500 contractual deliveries planned for this stage. Reasserting a relationship of trust and satisfaction, the Client signed a contract with Embraer for SISFRON Phase 2, which will continue the Program, complementing the coverage of the country’s western border surveillance system.

The first two M60 v2 radars (which join the more than 30 units of the original version already in operation by the Brazilian Armed Forces) were delivered to EB, which this year also signed a contract to acquire 4 additional units of this radar. Lastly, a new contract was signed with the Brazilian Army for the development of a radar for Counterbattery application. The project will resort to knowledge and technology applied to the M200 family of radars.







Atech, company that specializes in developing solutions for critical missions and technologies to support decision-making, has been working on major programs of the Brazilian Armed Forces.

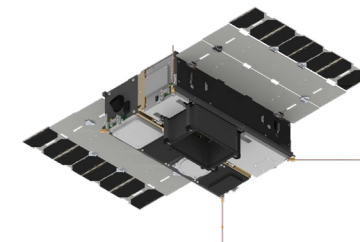
**Tamandaré-class Frigate Program:** in 2022, the infrastructure of CMS (Combat Management System) and IPMS (Integrated Platform Management System) integration test laboratories was completed.

**LABGENE Program (Laboratory for the Generation of Nucleoelectric Energy) of the Navy:** Atech develops the monitoring, control, and protection systems of the laboratory, as well as the integration of instrumentation systems and auxiliary systems: the year marked the issuance of the field installation documentation, which begins the performance scheduled for 2023.

In 2022, Eve Air Mobility was also awarded Phase 1 of the Urban Air Traffic Management (UATM) system concept. Atech is a strategic partner of EVE, and aims to apply its expertise in developing, deploying and supporting air traffic flow control and management systems for the future of urban air mobility.

Accomplishing the main milestones of the year, Atech and the Municipality of São José dos Campos signed a partnership focused on the management and monitoring of intelligence and security operations – CSI.

The agreement will result in increased situational awareness of security, enabling strategic decision-making and greater risk control, in addition to optimizing operational costs.



In 2022, Visiona took important steps to cement its status as a space systems integrator in Brazil.

It was declared the winner of a Public Notice of Subsidy to Technological Innovation, conducted by FINEP (Financier of Studies and Projects) for the development of a new high-resolution satellite – in the tender, Visiona led a consortium of thirteen companies and ICTs in the space industry in Brazil.

Additionally, the company completed the assembly of the VCUB satellite, and advanced its final tests, expected to be launched by SpaceX in the first half of 2023.

In the application business, the highlight of the year was the signing of the contract with BBSeg for the supply of a system for the provision of parametric agricultural insurance, expanding its participation in the agricultural industry.

## TEMPEST

Specializing in cybersecurity, Tempest's portfolio is aligned with the cybersecurity framework of NIST® (National Institute of Standards and Technology), the non-regulatory government agency of the U.S. Department of Commerce's Technology Administration.

2022 was the year of launch of Prospero Suite, a new platform for integrated management of cybersecurity services and results. The platform, which is already being used by sixty-one customers, allows management and consumption of results in an integrated fashion, integrating operational, tactical, and strategic perspectives.

Another noteworthy development of the year was Allow-Me Bio – evolution of facial biometrics, which has expertise in behavioral analysis. Created within the concept of security by design, it ensures security without impacting user experience.

In addition to these platforms, Tempest has also started publishing the daily Cyber Morning Call podcast, which covers breaking news on attacks, vulnerabilities, and threats.



With the first steel cutting, 2022 marked the building start of the first Tamandaré-class Frigate. The program continues following the development plan, with the first delivery scheduled for 2025. The Brazilian Navy has contracted a total of four frigates from SPE (Special-Purpose Entity) Águas Azuis, composed of Embraer, Atech, and ThyssenKrupp.




## Services & SUPPORT



Embraer Services & Support's commitment is to offer high-tech experiences with a human touch through a team dedicated to exceeding expectations. With a pool of experts that supports each of its customers, both in the air and on the ground, it is committed to always keeping them flying at their best performance.

With the customer at the center of its operations, the company implemented in 2022 the Customer Experience Program, a tool designed to measure customer satisfaction based on their experience.

The survey occurs in various formats and according to the customer's profile and operation, being sent soon after the customer's contact with Embraer, as well as an annual survey with several pillars for assessment. The Customer Experience Program allows Embraer to be more responsive in developing initiatives based on customer feedback, estimating, and anticipating their needs.

Additionally, the company has Product Support surveys that are carried out by Aviation International News (AIN) and Professional Pilot Magazine. Over the past ten years, Embraer has remained in the Top 3 of these surveys, in 2022 ranking first in the AIN ranking and second in ProPilot.

 Learn more:

-  Research
-  Financial Statements



## A TEAM FULLY DEDICATED TO CUSTOMERS



Embraer Services & Support counts on a team of 210 highly qualified field representatives worldwide, who are capital for the relationship of excellence with its customers.

### » STRENGTHENING RELATIONSHIPS

Every year customers have the opportunity to interact with the Embraer staff, other operators, suppliers, and partners during the Embraer Operators Conference (EOC). Conferences are segmented by business area:

- World Conference for E-Jets and E2 Operators;
- Three regional conferences for Executive Aviation operators: Brazil, USA, and Europe;
- World Conference for Super Tucano Operators.

The presence at these events is pivotal to strengthen the relationship, in addition to creating an opportunity to introduce updates on products and services, discussions about the operation, news in service and trends in the aviation market.

### » EMBRAER STARTS AIR CARGO ACTIVITIES

Embraer entered the air cargo market with the launch of the E190F and E195F Passenger to Freight Conversions (P2F).

E-Jet freighters are designed to meet the new demands of e-commerce and modern commerce, which require fast deliveries and decentralized operations. Therefore, Embraer is offering cargo savings and the adaptability that the right-sized jets offer.

One of the opportunities identified was the time of operation of the first E-Jets that entered service about ten-fifteen years ago and are exiting long-term leases and starting their replacement cycle. The full conversion to cargo will extend the life of E-Jets and encourage their replacement with more efficient, sustainable, and quieter aircraft.

With more than 1,600 E-Jets delivered globally, customers in this new freighter segment will benefit from an established and mature global service network as well as a comprehensive portfolio of products ready to support their operations.

Full freighter conversion is available for all E190 and E195 aircraft used, with entry into operation projected by early 2024. Embraer anticipates a market for this aircraft size of approximately seven hundred units in 20 years.

## » 20TH ANNIVERSARY OF EMBRAER AIRCRAFT MAINTENANCE SERVICES (EAMS)

In 2022, Embraer celebrated the 20th anniversary of Embraer Aircraft Maintenance Services (EAMS), a certified repair center operating in Nashville, TN (USA) under the most prominent regulatory authorities worldwide, including the Federal Aviation Administration (FAA) in the USA, the European Union Aviation Safety Agency (EASA), and the National Civil Aviation Agency (ANAC) in Brazil, among others. Opened in 2002, EAMS provides comprehensive fuselage services for heavy maintenance, unscheduled maintenance, structural checks and repairs, modifications, supplement type certificates (STCs), aircraft bridges, and lease returns.

Currently, EAMS is the world leader in heavy maintenance services for Embraer commercial aircraft. The facility serves half of the global E-Jets fleet and 80 percent of the North American E-Jets fleet, supporting component and AOG requests from around the world.

- MORE THAN 10,000 REPAIR ORDERS
- MORE THAN 180,000 MAINTENANCE TASKS
- COLLECTION OF MORE THAN 10 MILLION of service data points that help improve Embraer's technical knowledge

## » OGMA IS THE FIRST AUTHORIZED MAINTENANCE CENTER CERTIFIED BY ANAC FOR E2 E-JETS

OGMA, an Embraer Group company, has reached a historic milestone by becoming the first Authorized Maintenance Center certified by Portugal's National Civil Aviation Authority (ANAC) to perform heavy maintenance on commercial aircraft of the E2 E-Jets family in Europe, Middle East and Africa (EMEA). The announcement was made during the Embraer Operators Conference (EOC), international conference for Embraer's Commercial Aviation operators.

Named among the top 10 MROs in Europe in 2022 by Aerospace & Defense Review, this certification represents OGMA's expansion into the business segment of commercial aviation and heavy maintenance, total fleet management, engineering solutions, airworthiness management, support maintenance, as well as future aircraft modifications that meet customer requirements and retrofit for E2 E-Jets family aircraft. Besides, in 2022 OGMA signed a contract with Norwegian airline Widerøe to perform the first maintenance of an E2 aircraft worldwide.



## » BEST FBO

For the third year in a row, Embraer's FBO (fixed-base operator) is recognized as the best in Brazil, according to FBO 2022 survey, conducted by AIN (Aviation International News) magazine. Embraer's FBO in Sorocaba is a center of excellence in aircraft support, offering hangar, cleaning, and supply, among many other services.

## FBO IN SOROCABA IS THE BEST IN BRAZIL



## 10 YEARS OF THE CUSTOMER CARE CENTER

In 2012, Embraer launched the Customer Care Center, the result of the unification of its regional Commercial Aviation customer service centers. Celebrating ten years of operation in 2022, its scope will be broadened, covering executive and defense aircraft operators. From its headquarters in São José dos Campos, the Customer Care Center has a qualified team of technicians, providing global support for coordination of AOG events and scheduled aircraft maintenance assistance, from the first contact to resolution.

- **MORE THAN 70 COLLABORATORS** in the main duties of service and engineering solution projects;
- **MORE THAN 130 PROFESSIONALS** working 24/7 to serve three business units – Commercial, Executive, and Defense;
- **SUPPORT TO MORE THAN 3,900 AIRCRAFT** in operation and nearly 1,100 customers around the world;
- **MORE THAN 96% OF RESPONSE RATE** to customers within SLA.





## AGRICULTURAL Aviation

Embraer is a leader in Agricultural Aviation, certified by ISO 9001, ISO 14001, and OHSAS 18001. Since 2004, the company has a certificate issued by ANAC for Ipanema 100% hydrated alcohol (ethanol) powered airplane, which makes it the only aircraft in the world certified to fly with this type of fuel.

Ipanema has also reached other levels. The new generation, EMB-203, which was launched in 2015, accumulates high orders each year and is currently the best-selling aircraft in Brazil. Throughout 2022, Embraer reached the mark of sixty-four aircraft sold, surpassing the previous year's figures.

This is the third consecutive year of aircraft and parts sales records, reaching a growth of 40% compared to 2021 and four times higher than the average production of the first five years since the launch of Ipanema 203. On top of the high growth of agricultural market, this strong expansion results from the consistent process of brand strengthening, as well as improvements in the already recognized high performance of aircraft, not to mention the plant's operational efficiency and the quality of customer service and support.

These figures cement Embraer's leadership in the market. Throughout 2023, the aircraft will also bring new improvements in aspects such as ergonomics, maintenance, and durability, exceeding customer expectations.



**IPANEMA**  
203

**BRAZIL'S BEST-SELLING AIRCRAFT**  
**64 AIRCRAFT**  
**SOLD IN 2022**

Since 2005, Ipanema is the first and only aircraft certified to operate with an ethanol engine in the world. As of 2015, 100 percent of the new airplanes leave the plant powered by ethanol, in addition to hundreds of conversion kits from gasoline to ethanol engines installed in part of the more than 1,200 airplanes in operation. The company estimates that more than 200 million liters of fossil fuel have ceased to be burned.



THE WORLD'S FIRST AND ONLY ETHANOL-POWERED AIRCRAFT  
**+300 THOUSAND**  
 TONS OF CO<sub>2</sub> STOPPED BEING RELEASED  
 INTO THE ATMOSPHERE

## SPEECHES AND CONSULTING

Embraer's Customer Support team held, throughout 2022, lectures on flight safety and continuous improvements to maintenance processes.

In addition, partnerships were signed with the companies Sabri and Agroefetiva that, from 2023, will offer free consulting to Ipanema purchasers, so that the aircraft operate in an optimal configuration and thus can achieve maximum performance, according to the needs of each customer.







SUSTAINABILITY  
**Indicators**



# I N D E X

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# Technical References AND MATERIALITY



# 1. Technical REFERENCES



This Annual Sustainability Report follows the reporting references below:

## Global Reporting Initiative (GRI):

The full list of material indicators covered in this report is available in the [GRI content index](#).

## Sustainability Accounting Standards Board (SASB):

Embraer's ESG performance information was supplemented by specific indicators from the aerospace industry. The list of indicators is available in [SASB content index](#).

## Sustainable Development Goals (SDGs) and Global Compact Principles:

Embraer's efforts are aligned with global agendas, which assemble relevant challenges from society, government, and the aerospace segment. The main SDGs considered are integrated into the [GRI content index](#).

## Task Force on Climate-Related Financial Disclosures (TCFD)

Information pertaining to this framework's recommendations is available in the [TCFD content index](#).

## Data pointed out refer to the period from January 1, 2022, to December 31, 2022

And it covers 100% of Embraer S.A.'s collaborators. Exceptions regarding the scope of data are duly described in the indicators to which they pertain. (GRI 2-2; 2-3)

## Embraer produces its Sustainability Reports on an annual basis.

The document is available to the public on its corporate website [esg.embraer.com](http://esg.embraer.com) and the historical series can be accessed on the [Investor Relations website](#) (GRI 2-3)

Questions about this report can be sent to the e-mail [investor.relations@embraer.com.br](mailto:investor.relations@embraer.com.br) (GRI 2-3)

This report has not undergone independent auditor assurance (GRI 2-5).



## 2.MATERIALITY

(GRI 3-1)

Embraer is a company that values relationships with all its value chain connections. Dialog and engagement with several stakeholders are ongoing company processes.

The materiality process to ascertain material topics and the corporate sustainability agenda has been carried out by Embraer, frequently and in a structured manner, since 2013. In 2022, the process of updating its materiality matrix was accomplished, including the principle of dual-materiality and following the guidelines of the 2021 GRI-3 standard. (GRI 3-1)

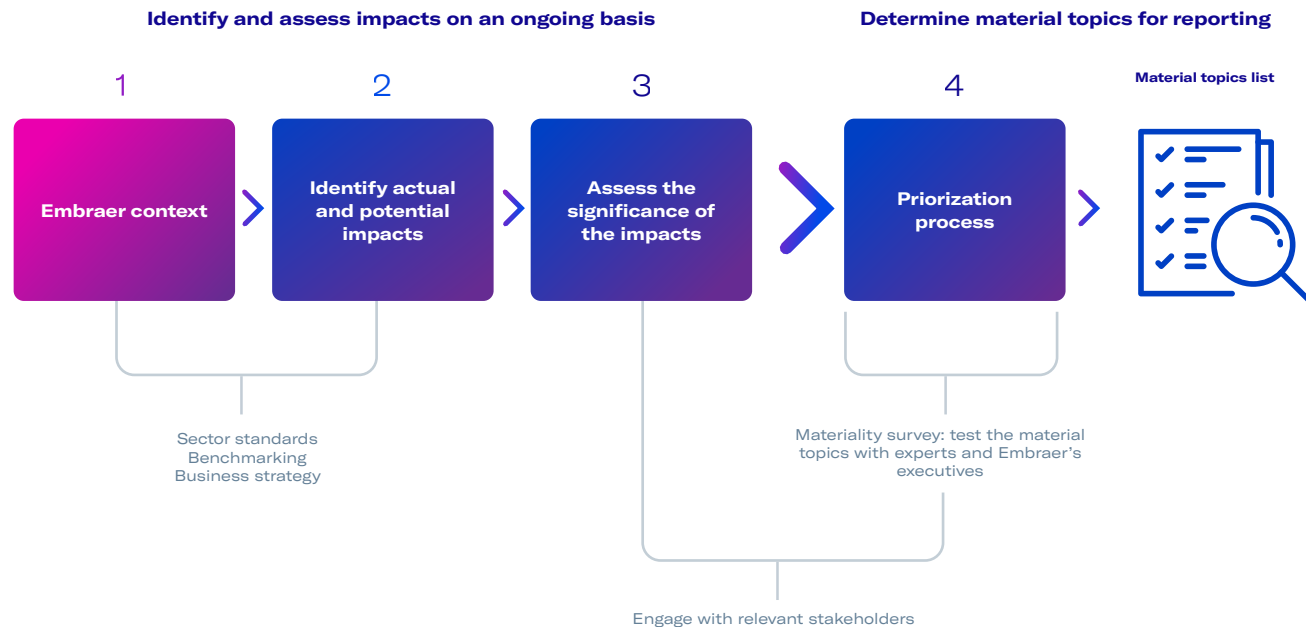


Figure 1: Embraer's 2022 Materiality Process (GRI 3-1)

The materiality survey was attended by more than 700 responses, accounting for five stakeholder groups: suppliers, customers, collaborators, investors & shareholders, and civil society. The material topics were discussed and validated by the company’s senior leadership, and by the Board of Directors advisory committee’ members in charge of People and ESG matters, referred to as CPESG.

When comparing the list of material topics of this year with that carried out in the previous materiality process, conducted in 2017, the main change is in the inclusion of the topic Support for the development of biofuels (SAF), which occurred both by prioritizing stakeholders and by strategically prioritizing Embraer’s executive committee.

(GRI 3-2)

Learn more:  
 Board of Directors' Advisory Committee

# MATERIALITY MATRIX

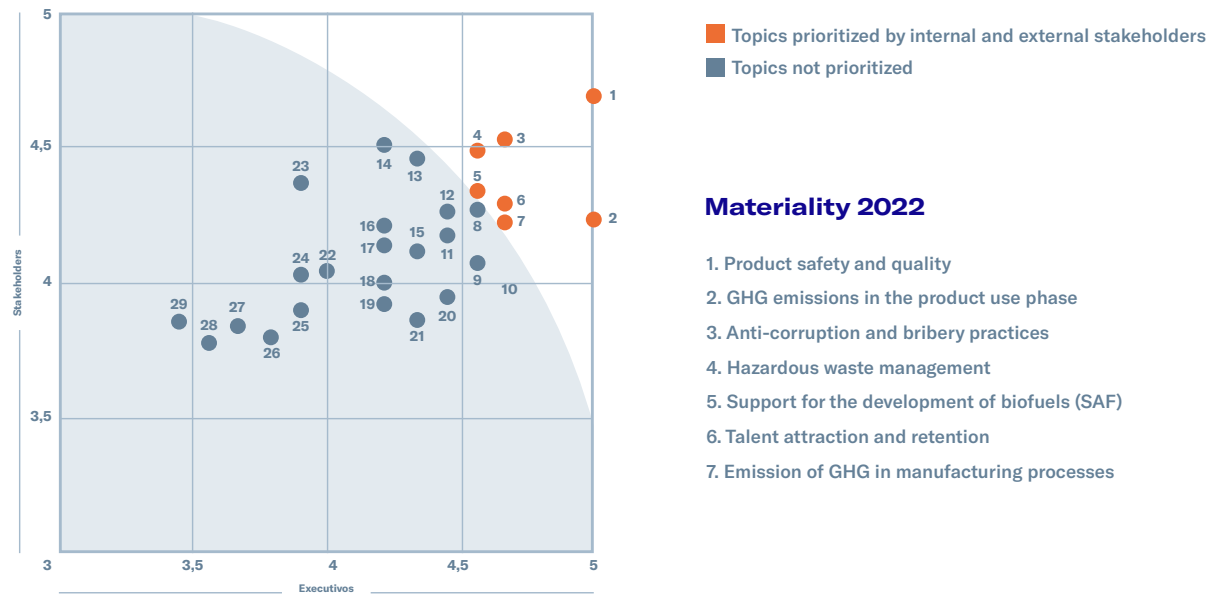


Figure 2: 2022 Materiality Matrix (GRI 3-2)

## SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Embraer has been a signatory to the UN Global Compact since 2008 and maintains its ESG strategy aligned with the Sustainable Development Goals. The main SDGs related to the material topics are:

1 - No Poverty

4 - Quality Education

5 - Gender Equality

8 - Decent work and Economic growth

9 - Industry, Innovation and Infrastructure

13 - Climate Action

Other SDGs are addressed by Embraer according to its strategic plan and ESG agenda. The complete list is available in the GRI content index.







# ENVIRONMENTAL **Indicators**

## 3.1.1. ENERGY

The units included for the construction of the indicators of this topic are Belo Horizonte, Botucatu, Campinas, Embraer Equipment Division (EDE), Eugênio de Melo, Gavião Peixoto, Ozires Silva, São Paulo, Sorocaba, Taubaté, Fort Lauderdale, Jacksonville, Macon, Melbourne, Nashville and OGMA (Aeronautical Industry of Portugal), which account for 94% of Embraer’s collaborators considering all its worldwide units. In 2022, data coverage increased from 93% to 94% owing to the inclusion of the Campinas unit in the scope.

Consumptions of purchased electricity are stated on the supply invoices. Data, as well as the invoices and meters calibration, is audited internally and by a third party, annually, within the scope of the Greenhouse Gas Inventory – GHG (Scope 2).

Embraer’s GHG Inventory is being verified by LRQA do Brasil LTDA in accordance with to ISO 14064:2006. Checking the Inventory 2022 is being done with a reasonable level of trust and should be finalized in April 2023.

### Energy consumption within the organization (MWh)

(GRI 302-1)

Sources	Types	2020	2021	2022*
Renewable	Purchased and consumed fuel	83	739	1168
	Purchased electricity**	27594	29868	14404
	Electricity generated***	-	-	34
	<b>Renewable energy total consumption</b>	<b>27677</b>	<b>30607</b>	<b>15606</b>
Non-renewable	Purchased and consumed fuel	153856	158397	151757
	Purchased electricity	136993	139702	142658
	<b>Non-renewable energy total Consumption</b>	<b>290849</b>	<b>298099</b>	<b>294415</b>
<b>Total energy consumption within the organization (MWh)</b>		<b>318526</b>	<b>328706</b>	<b>310021</b>
<b>Data coverage</b>		<b>92%</b>	<b>93%</b>	<b>94%</b>

\* In 2022, the Évora unit ceased to be part of the scope.

\*\* Purchased electricity: Biomass, solar, wind, PCH from incentivized energy sources without certificate of origin (free energy market).

\*\*\* Electricity generated: until 2021, electricity generated was demonstrated along with purchased electricity. As of 2022, this data will be published separately.

Note: (i) OGMA Units, in Portugal, and Sorocaba, in Brazil, use incentivized (renewable) electricity. (ii) Self-produced electricity refers to generation for own use from photovoltaic panels installed in Ozires Silva. (iii) Renewable fuels include: biomethane, ethanol, and SAF (Sustainable Aviation Fuel).

In 2022, compared to 2021, there was a reduction in purchased renewable electricity, owing to the termination of the contract for incentivized energy supply in the Botucatu, EDE and Taubaté units (which together accounted for 17% of electricity consumption purchased in 2021). It ought to be remarked that from 2024, the company will purchase and use 100% energy from renewable sources in all Brazilian units.

Overall, total fuel consumption decreased by 4% in 2022 compared to the previous year.



**Learn more:**

Advanced achievement of the 100% renewable electricity target

### Fuel consumption within the organization (MWh)

(GRI 302-1)

Source	Fuel	2020	2021	2022*
Renewable	Hydrous ethanol	83	143	166
	SAF - Sustainable Aviation Fuel	-	596	682
	Biomethane	-	-	320
	<b>Total renewable fuel</b>	<b>83</b>	<b>739</b>	<b>1168</b>
Non-renewable	Diesel - Brazil	635	731	505
	Diesel BO	609	695	767
	Gasoline - Brazil	81	30	27
	Gasoline	136	313	357
	Aviation Gasoline	2	4	4
	Liquefied Petroleum Gas (LPG)	1446	1395	1491
	Natural Gas	51033	50956	47521
	Aviation Kerosene	99905	104263	101022
	Acetylene	2	2	2
	Propane	7	8	61
	<b>Total non-renewable fuel</b>	<b>153856</b>	<b>158397</b>	<b>151757</b>

\* In 2022, the Évora unit ceased to be part of the scope.

Note: (i) Although conservatively categorized as non-renewable fuels, "Gas - Brazil" and "Diesel - Brazil" contain additions of renewable fuels (i.e., ethanol and biodiesel, respectively).



## Fuel consumption outside the organization (MWh)

(GRI 302-2)

Source	Fuel	2020	2021	2022*
Renewable	Hydrous ethanol	1620	1825	3095
	<b>Total</b>	<b>1620</b>	<b>1825</b>	<b>3095</b>
Non-renewable	Diesel – Brazil	20181	20142	23022
	Gasoline – Brazil	681	741	1227
	Liquefied Petroleum Gas (LPG)	23	17	22
	Natural Gas	0	0	0
	Aviation Kerosene	7210	9068	28875**
	<b>Total</b>	<b>28095</b>	<b>29968</b>	<b>53146</b>

## Energy Management

(RT-AE-130a.1)

Indicator	2021	2022*
Total energy consumed (GJ)	1183214	1115955
% of energy it consumed that was supplied from grid electricity	52	51
% renewable energy	9	5

In 2022, the significant increase in aviation kerosene consumption was due to the increase of air travel.

\* In 2022, the Évora unit ceased to be part of the scope.

\*\* Does not consider the estimated Aviation Kerosene consumption relative to the use of sold product category.

Note: (i) This table considers energy consumption in sources categorized as Scope 3. (ii) Although conservatively categorized as non-renewable fuels, "Gas - Brazil" and "Diesel - Brazil" contain additions of renewable fuels (i.e., ethanol and biodiesel, respectively).

## 3.1.2. EMISSIONS

### GREENHOUSE GAS EMISSIONS

The company has been carrying out its Greenhouse Gas (GHG) Emissions Inventory in keeping with ISO 14064 Part I since 2009. From 2020 on, Embraer increased the coverage of GHG Emissions data from 9 to 6 operating units, which has led to an increase in emissions. In 2022, the Évora unit ceased to be part of the Embraer group, and the inventory started covering 15 unites, namely: Belo Horizonte, Botucatu, EDE, Eugênio de Melo, Gavião Peixoto, Ozires Silva, São Paulo, Sorocaba, and Taubaté, in Brazil; Fort Lauderdale, Jacksonville, Macon, Melbourne, and Nashville, in the United States, and OGMA, in Portugal.

Embraer's GHG Inventory is being verified by LRQA do Brasil LTDA in accordance with ISO 14064:2006. The verification of 2022 inventory is being taken with a reasonable level of confidence and should be completed in April 2023.

### Direct (Scope 1) GHG emissions (tCO<sub>2</sub>e)

(GRI 305-1)

Gas	2020	2021	2022*
CO <sub>2</sub>	36721	38007	36504
HFC	5304	6497	4846
N <sub>2</sub> O	251	266	230
CH <sub>4</sub>	16	17	19
PFC-218	0	0	0
<b>Total</b>	<b>42292</b>	<b>44787</b>	<b>41599</b>
Biogenic emissions	42	100	172

\* In 2022, the Évora unit ceased to be part of the scope.

Note: (i) The increase in emissions from biogenic sources is explained by the increase in the use of renewable energy sources by Embraer.

### Indirect (Scope 2) GHG emissions (tCO<sub>2</sub>e)

(GRI 305-2)

Gas	2020	2021	2022*
CH <sub>4</sub>	16	16	20
CO <sub>2</sub>	22874	30327	17840
N <sub>2</sub> O	24	24	25
<b>Total</b>	<b>22914</b>	<b>30367</b>	<b>17885</b>

The CO<sub>2</sub> emission factor of the National Interconnected System of Brazil posted a significant reduction in 2022 compared to 2021. This scenario contributed to the reduction of Scope 2 emissions.

\* In 2022, the Évora unit ceased to be part of the scope.

### Other indirect (Scope 3) GHG emissions (tCO<sub>2</sub>e)

(GRI 305-3)

Gas	2020	2021	2022
CH <sub>4</sub>	1126	1122	1341
CO <sub>2</sub>	10014	11238	15617363
N <sub>2</sub> O	155	161	202
<b>Total</b>	<b>11295</b>	<b>12521</b>	<b>15618906</b>
Biogenic emissions	1621	1421	1985



### Other indirect (Scope 3) GHG emissions by category (tCO<sub>2</sub>e)

(GRI 305-3)

Categories	2021	2022
Purchased Goods and Services	3597	3165
Collaborator Commuting	1071	1300
Waste Generated in Operations	5481	4785
Transport and Distribution (Upstream)	1347	1359
Business Travel	2444	7605
Use of sold product	-	15585195
Activities related to fuel and energy not included in Scopes 1 and 2	-	15497
<b>Total</b>	<b>13940</b>	<b>15618906</b>

The reach of Scope 3 was significantly expanded in 2022: (i) For the categories: Goods and Services purchased, Collaborator commuting (home-work), Waste generated in operations, Transport and distribution (upstream), and Business trips, data reach was maintained, only considering the Brazilian units. (ii) The category of emissions associated with energy use, not included in scope 1 and 2, was included in all operating units considered in the inventory. For this inclusion, emission factors available in the literature about the production processes of the energy consumed by the company were considered. (iii) Scope 3 emissions associated with the use of the product sold for commercial and executive aircraft were included. For accounting, the Technical Guide for Calculating Scope 3 Emissions – category 11 (GHG Protocol, 2022) was considered. The emissions from the use phase were calculated, resulting from the

consumption of aviation kerosene – the emission factor used considers the entire fuel life cycle. Values were calculated considering the useful life of aircraft, the number of aircraft delivered in the reported year, and the average annual fuel consumption of each aircraft model. The value of delivered aircraft was taken from Embraer’s financial report. Other information was estimated considering internal and external data on aircraft performance. The calculation methodology, as well as the entire inventory of GHG emissions, is being validated by a third party, with a reasonable level of confidence and following the guidelines of ISO 14064.

### Direct GHG emissions intensity (Scope 1)

(GRI 305-4)

	2020	2021	2022
GHG total direct emissions (tCO <sub>2</sub> e)	42292	44787	41599
Annual revenue (Million US\$)	3771	4197	4500
<b>Emissions by annual revenue (tCO<sub>2</sub>e / Million US\$)</b>	<b>11,21</b>	<b>10,67</b>	<b>9,24</b>
Data coverage	92%	93%	93%

### Indirect GHG emissions intensity (Scope 2)

(GRI 305-4)

	2020	2021	2022
GHG total indirect emissions (tCO <sub>2</sub> e)	22914	30367	17885
Annual revenue (Million US\$)	3771	4197	4500
<b>Emissions by annual revenue (tCO<sub>2</sub>e / Million US\$)</b>	<b>6,1</b>	<b>7,2</b>	<b>3,9</b>
Data coverage	92%	93%	93%

## OTHER ATMOSPHERIC EMISSIONS

The values reported in 2022 refer to the production units Botucatu, EDE, Eugênio de Melo, Gavião Peixoto, Ozires Silva, Taubaté, Melbourne, and Nashville. For the calculations, the technical standards of regulatory environmental agencies of each region are applied.

### NO<sub>x</sub>, SO<sub>x</sub>, and other significant atmospheric emissions (t)

(GRI 305-7)

Gas	2020	2021	2022*
NO <sub>x</sub>	36	57	53
SO <sub>x</sub>	1	4	1
Persistent Organic Pollutants (POP)	0	0	0
Volatile Organic Compounds (VOC)	16	89	78
Particulate Matter (PM)	14	55	37
<b>Total</b>	<b>67</b>	<b>205</b>	<b>170</b>

### Emissions of Ozone-Depleting Substances - ODS (t)

(GRI 305-6)

Gas	2020	2021	2022*
HCFC-22	0,09	0,08	0,06
HCFC-141B	0,04	0,03	0,02
HCFC-124	-	0	0
<b>Total</b>	<b>0,13</b>	<b>0,11</b>	<b>0,08</b>

\* In 2022, the Évora unit ceased to be part of the scope.

Note: (i) Emissions in tons of CFC-11 equivalent calculated through the Ozone Destruction Potential (ODP), as applied by the Montreal Protocol. Figures obtained at: <http://www.epa.gov/ozone/science/ods/index.html>, (ii) In 2021, 3 international units (OGMA + ÉVORA + MLB) were included.

## 3.1.3. WATER AND EFFLUENTS

### EFFLUENTS

At Embraer, the environmental guidelines pertaining to wastewater generation are:

- Compliance with legal, environmental, health, safety, fire prevention, and emergency requirements applicable to the company's business;
- Prevention and response to pollution, respect for biodiversity, and concern about climate change;
- Furtherance and enhancement of technology development, so that their products, processes, and equipment cause less impact.

Data coverage for effluents is 86% and considers the following units: Botucatu, EDE, Eugênio de Melo, Gavião Peixoto, Melbourne, Ozires Silva, Taubaté, Melbourne, and OGMA.

### WATER

In 2022, data coverage increased to 94% compared to 92% in 2021, which is a result of improvements in management that made it possible to include the following units: Campinas, São Paulo, Jacksonville, and Macon. Additionally, the indicator considers: Belo Horizonte, Botucatu, EDE, Eugênio de Melo, Gavião Peixoto, Ozires Silva, Sorocaba, Taubaté, Fort Lauderdale, Melbourne, Nashville, and OGMA.

#### **Embraer has initiatives for the rational use and conservation of water, including:**

- Reuse of treated effluent in cooling towers and gas washers in EDE;
- Use of rainwater in toilets, gas washers, and floor washing in Botucatu;
- Reuse of treated effluent for cleaning parts, in the painting booth, gas washers, and cooling towers in Ozires Silva;
- Reuse of effluent treated by reverse osmosis, in an industrial process at the Taubaté unit;
- Use of effluents from other organizations in the Melbourne unit, for non-drinking use.



## Water withdrawal by sources (m<sup>3</sup>)

(GRI 303-3)

Water withdrawal	2020	2021	2022*
Surface water including lakes, rivers, and streams	-	0	0
Groundwater	393146	517569	397825
Water withdrawal by sources			
Rainwater directly collected and stored by the company	-	443	148
Third-party water	314270	275182	244258
Effluent from other companies	94803	81156	88925
<b>Total water withdrawal</b>	<b>802219</b>	<b>874350</b>	<b>731156</b>
<b>Data coverage</b>	<b>92%</b>	<b>92%</b>	<b>94%</b>

\* In 2022, the Évora unit ceased to be part of the scope.

Note: The consumption of water from local concessionaire, underground source, and rainwater was lower in 2022 mainly owing to the exclusion of Évora from the scope, a unit that is no longer part of the Embraer group.

Water consumption in 2022 was within expectations even in the face of the company's production increase. The high consumption occurring in 2021 was mainly connected to the need for maintenance in industrial facilities, which resulted in an unexpected water consumption for the year.

The reduction observed in 2022 of 11% for the consumption of water from a local concessionaire and 67% for rainwater mainly resulted from the exclusion of the Évora unit from the scope. This unit accounted for 16% and 65%, respectively, of water consumption from local concessionaire and rainwater.

The Melbourne unit stands out in terms of water consumption, with 91% of the total water consumed coming from indirect reuse, that is, from the use of effluents from other organizations.

The Ozires Silva unit had a 30% reduction in water consumption in 2022 compared to the previous year. This unit accounts for about 56% of total groundwater consumption.

In relation to the OGMA unit, which accounts for 18% of the company's water consumption, the strategy of outsourcing water-consuming processes contributed to a 5% reduction in consumption in 2022 vis-à-vis 2021.

## Water discharge (m<sup>3</sup>)

(GRI 303-4)

	Water discharge	2021	2022*
	Surface water	84306	71107
	Groundwater	0	0
Water discharge by destination	Seawater	0	0
	Third-party water	293699	299694
	Third-party water and the volume of this total sent for use to other organizations	0	0
	<b>Total water discharge</b>	<b>378005</b>	<b>370800</b>
Water discharge by freshwater and other types of water	Freshwater (≤1,000 mg/L total dissolved solids)	-	-
	Other water (>1,000 mg/L total dissolved solids)	-	-
	<b>Data coverage</b>	<b>86%</b>	<b>86%</b>

\* In 2022, the Évora unit ceased to be part of the scope.

Note: Indicators (i) fresh water and (ii) other types of water will be monitored from the next reporting cycle.

### Total water discharge, separated by type (m<sup>3</sup>)

(GRI 303-4)

	2020	2021	2022*
Domestic	130828	258251	271755
Industrial	111438	119754	99045

There was a 17% reduction in the disposal of industrial effluent, which mainly results for the removal of the Évora unit from the scope. Another factor that contributed to the reduction was the strategy of outsourcing effluent generating processes in the OGMA unit from mid-2022.

The Ozires Silva unit, which accounts for about 28% of domestic effluent generation and where the largest number of collaborators is concentrated, posted a 44% increase in domestic effluent generation, owing to the return of collaborators to the face-to-face and hybrid regimes, and also due to the increase in production in 2022.

\* In 2022, the Évora unit ceased to be part of the scope.

Note: Domestic effluents are accounted for by Embraer in the units where there is internal biological treatment. They are: Eugênio de Melo, Gavião Peixoto, Ozires Silva, Taubaté, and OGMA. In turn, industrial effluents are accounted for by Embraer in units where there is internal treatment in effluent treatment plants. They are: Botucatu, EDE, Eugênio de Melo, Gavião Peixoto, Taubaté, Melbourne, and OGMA. The Belo Horizonte, Campinas, São Paulo, Sorocaba, Fort Lauderdale, Jacksonville, Macon, and Nashville units do not generate industrial effluents.

### Recycled and Reused Water (m<sup>3</sup>)

(CDP W1.2)

Water reused by the company	2020	2021	2022*
Total amount of reused water	33213	38082	16761
Recirculation index	4,1%	4,4%	2,29%

Water reuse within the organization was lower in 2022, mainly due to the exclusion of Évora from the scope. In 2021, Évora accounted for 49% of direct water reuse, with about 18,700 m<sup>3</sup>.



## 3.1.4. WASTE

Waste generation coverage refers to the Botucatu, Campinas, EDE, Eugênio de Melo, Gavião Peixoto, Ozires Silva, Sorocaba, Taubaté, Fort Lauderdale, Jacksonville, Macon, Melbourne, Nashville, and OGMA facilities, which account for 93% of Embraer’s collaborators considering all worldwide facilities. In 2022, the unit in Évora (Portugal) ceased to be part of the Embraer group.

In Brazil and Portugal, accounting for about 95% of the waste generated, data is obtained through quantification in calibrated equipment (scales) and audited annually under the Integrated System for Management of Health, Occupational Safety, and Environment (SIGMASS). In addition, all management is performed in a public and transparent system (online platform), so that all entities involved in waste management (generator, carrier, temporary storage, receiver, etc.) and regulatory environmental agencies have instant access to data and shipments, being able to audit, deny incoherent shipments, among other actions.

In the units located in the United States, data is supplied by the companies responsible for the final disposal of solid waste.

### Total weight of waste, sorted by disposal method (t)

(GRI 306-3,4,5 e RT-AE-150a.1)

Type	Disposal method	2021	2022
	Landfill	6	12
	Recycling, Recovery and Reuse	367	120
	Composting	0	0
	Incineration or Direct Burning (With Energy Recovery)	0	0
	Incineration or Direct Burning (No Energy Recovery)	5	0
Hazardous waste	Waste Blend Formulation (For Co-Processing)	1230	1188
	Biological Treatment	0	0
	Physical-Chemical Treatment	1357	1391
	Valorization*	186	345
	Elimination *	2037	1553
	Others	0	6
	<b>Total hazardous waste generated</b>	<b>5188</b>	<b>4615</b>

\* Exclusive methods for Portugal units.

Restatements of information (GRI 2-4): In 2021, coverage was stated to include Fort Lauderdale. However, this unit was only considered in 2022.

### Total waste weight, separated by disposal method (t)

(GRI 306-3,4,5 e RT-AE-150a.1)

Type	Disposal method	2021	2022
Non-hazardous waste	Landfill	1062	1832
	Recycling, Recovery and Reuse	6715	7846
	Composting	274	332
	Incineration Or Direct Burning (With Energy Recovery)	845	1240
	Incineration Or Direct Burning (No Energy Recovery)	1	0
	Waste Blend Formulation (For Co-Processing)	510	730
	Biological Treatment	230	254
	Physical-Chemical Treatment	0	0
	Valorization*	1087	691
	Elimination *	2	8
<b>Total non-hazardous waste generated</b>		<b>10725</b>	<b>12932</b>

\* Exclusive methods for Portugal units.

### Percentage of waste recycled

(GRI 306-3,4,5 e RT-AE-150a.1)

	2021	2022
Total waste generated (t)	15913	17547
% of hazardous waste recycled	7,1	28
% of non-hazardous waste recycled	70	69
Data coverage	93%	93%

Waste generation data, by type of disposal, is received, consolidated, and critically reviewed monthly by Embraer's Health, Safety and Environment area. Moreover, data is submitted to local leadership and vice presidencies, especially in the context of the assessment of SIGMASS performance.

The classification between hazardous waste and non-hazardous waste follows the legal and regulatory framework of the country where the waste is generated.

In the scope of recycled waste, the following are considered: waste that undergoes a process of changing its physical, physical-chemical or biological properties, with a view to transformation into inputs or new products; reuse of solid waste without its biological, physical or physical-chemical transformation; and reuse including the transformation of waste into a blend for co-processing purposes. Thus, the disposal categories included in this scope are: (i) recycling, recovery, and reuse, (ii) composting and (iii) formulation of waste blend for co-processing.

From 2022, the formulation of waste blend for co-processing (specific to Brazil) was included in the scope of recycled waste considering the specific legal protection (CONAMA Resolution No. 313/2002 and CONAMA Res. No. 499/2020) that includes co-processing in the category of reuse/recycling/recovery. Co-processing is defined as a final destination that involves the processing of solid waste as a substitute for raw material and/ or fuel in the clinker production furnace system, in the manufacture of cement. This inclusion explains the increase in the percentage of recycled waste in 2022. It is important to note that in Brazil incineration is a process subject to specific regulations, not covering co-processing, according to CONAMA Resolution No. 313/2002.

The “other” type of disposal includes hazardous waste generated at US units, classified according to local regulations as Universal Waste ( EPA, 40 CFR 273.9). Recovery and Disposal are exclusive methods for facilities in Portugal, pursuant to Directive 2008/98/EC.

The category incineration or direct burning of non-hazardous waste comprises wood waste generated in operations. Such waste is processed and transformed into biomass for energy use.

In 2022 there was an increase in total solid waste generation. As concerns non-hazardous waste, two main factors contributed to the increase in this category of waste, (i) the increase in industrial production and (ii) the post-pandemic return of collaborators to face-to-face and hybrid work regimes, which increased the generation of waste from restaurants, pantries, and offices. As regards hazardous waste, there was a reduction in generation owing to the exclusion of the Évora unit, and the strategy of outsourcing production in OGMA.

» NUMBER AND AGGREGATE QUANTITY OF REPORTABLE SPILLS; QUANTITY RECOVERED:

There were no reportable leaks in 2022, according to the guidelines of indicator SASB (RT-AE-150a 2). Events that occurred and that do not meet the criteria of this indicator were reported to the regulatory environmental agencies. Such events were promptly contained and managed in keeping with the regulations applicable to the locations where they occurred.





# SOCIAL Indicators



## 3.2.1. HEALTH, SAFETY, AND WELL-BEING

(GRI 403-1)

Embraer seeks excellence in its occupational health and safety performance, a topic considered a priority in the company. Hence, it carries out educational and preventive efforts on an ongoing basis, in connection with the MASS (Health, Occupational Safety, and Environment) policy, which is global in scope.

All collaborators and partner companies (service providers) are covered by the Integrated Management System for Health, Occupational Safety, and Environment – SIGMASS. The staff consists of assistants, nursing technicians, occupational safety technicians, occupational safety engineers, coordinators and the Global Head of Health, Safety and Environment.



Learn more:

MASS Policy

Compliance Policy

(GRI 403-2)

The management model applied in the Embraer Business Excellence Program - P3E uses the concept of SQDC (Safety, Quality, Delivery, and Cost) aiming at the standardization and optimization of the company's operational and cost indicators.

In addition to the criteria of business excellence, Embraer has maintained in its largest manufacturing units, for 19 years, international certifications such as ISO 14001. In 2021, the Brazilian Units successfully achieved ISO 45001 certification, ensuring the implementation of all the tools provided for in this requirement. This means that more than 88% of Embraer's operations are covered by these certifications.

Collaborators and workers who are not employed can report hazards and dangerous situations through the SIGMASS channel. In this channel, communication is anonymous and supported by Embraer's Compliance policy.



## Work-related injuries: Health and Occupational Safety

(GRI 403-9)

Work-related injuries - Collaborators	Unit	2020	2021	2022
Total number of fatalities	N.	0	0	0
Fatalities rate	i	0	0	0
The number of accidents with lost-workday (excluding fatalities);	N.	23	13	23
The rate of accidents with lost-workday (excluding fatalities);	i	0,75	0,41	0,75

The rate of accidents with lost-workday by countries	Unidade	2020	2021	2022
Brazil	i	-	0,09	0,04
United States	i	-	0,80	0,70
Portugal	i	-	0	0,56
Other countries	i	-	0	0
<b>Total</b>	<b>i</b>	<b>-</b>	<b>0,41</b>	<b>0,15</b>

Work-related injuries - Contractors	Unit	2020	2021	2022
Total number of fatalities	N.	-	-	0
Fatalities rate	i	0	0	0
The number of accidents with lost-workday (excluding fatalities);	N.	4	5	8
The rate of accidents with lost-workday (excluding fatalities);	i	0,52	0,34	0,24

The rate of accidents with lost-workday by countries	Unidade	2020	2021	2022
Brazil	i	-	0,27	0,24
United States	i	-	0,07	0,30
Portugal	i	-	0	0
Other countries	i	-	0	0
<b>Total</b>	<b>i</b>	<b>-</b>	<b>0,34</b>	<b>0,05</b>

Note: The data was calculated according to the regulatory standards in Brazil and OSHA (USA). Indexes were calculated based on 1,000,000 hours worked.



## OCCUPATIONAL SAFETY AND HEALTH PROGRAMS

(GRI 403-1, 403-2, 403-7, 403-8, 403-9, 403-10)

Embraer's Occupational Health Program is intended to provide an occupational medical care service in the company's units, as well as ensure the monitoring of environmental conditions at work, thus allowing health and prevention of both occupational and clinical diseases.

All collaborators are invited to carry out periodic occupational examinations, which are carried out on-site or in clinics accredited by Embraer. In addition, the occupational physician will visit the various areas of the company, without prior notice and together with the staff of occupational engineers, in order to inspect the working conditions of collaborators.

The company also relies on the process for surveying hazards and risks as a means to prevent and mitigate impacts on the health and safety of collaborators. This work is conducted by Embraer's Health, Safety and Environment staff.



## WELL-BEING PROGRAM

(GRI 403-6)

### Fostering of Health and Well-Being

Programs	Number of collaborators participating		
	2020	2021	2022
Well-being without smoking	10	3	18
Well-being without drugs	63	26	23
Well-being with motherhood	0*	40	125
Well-being with yourself	369	211	556
Well-being with physical activity	196	348	1011**
Well-being	103	160	467
Vaccination program **	32123	24682	27000
Reinsertion program	228	124	-
Embraer on the move	4800	4800	2762
Prevention lives streaming sessions	1490	2032	1028

Note: (i) The programs are offered to Brazilian collaborators, (ii) \* Owing to the pandemic, the event was not held, (iii) \*\* This number includes collaborators and their dependents and (iv) In 2022 the company did not carry out the Reinsertion Program



### WELL-BEING WITH YOURSELF

The Company offers a multidisciplinary staff made up of nutritionists and psychologists to help collaborators achieve balance and quality of life. This effort is targeted at collaborators who are overweight, obese or have chronic diseases such as hypertension, cholesterol, dyslipidemia, diabetes, and heart diseases and who want to have a healthier life.



### WELL-BEING WITH PHYSICAL ACTIVITY

The 30' (thirty minutes) gym is a method implemented by the Well-Being Program in concert with the Embraer Sports Association (ADCE) since 2011 that aims mainly at general physical conditioning, in which aerobic capacities and muscular endurance are worked simultaneously. Circuit training, after which the program is named: 30 minutes, consists of an average of 16 activities called stations, in weight machines and gymnastics equipment (Swiss ball, dumbbells, elastic bed, etc.); in each station an execution time (fifty seconds) is determined, and a voice command determines the change of station.



### WELL-BEING WITHOUT SMOKING

To support collaborators and their direct dependents who no longer want to smoke, the company offers a therapy that helps smokers quit this practice, combining medication (nicotine replacement to minimize the physical symptoms of abstinence), and psychological support (to strengthen the emotional structure, encourage the change of habit, and behaviors associated with smoking). All therapy and medication are 100% paid by the company.



### WELL-BEING WITHOUT DRUGS

A group of qualified professionals, with the support of specialized institutions working for the prevention and recovery of chemical dependence, is responsible for the therapy, which can be:

**Outpatient:** with individual therapy with specialists and participation in a weekly meeting in the exclusive Support Group for Embraer;

**Hospitalization:** depending on the disease stage, and if there is a need for hospitalization, there are specialized clinics and the hospitalization period can range between 30 and 45 days;

**Treatment for direct dependents:** In general, the family of the addict needs support to be able to cope better with the disease, so family members are also offered treatment through a support group and individual therapy.

The Program bears 100% of the expenses for the first hospitalization and outpatient treatment.



### WELL-BEING WITH THE FAMILY

Designed to assist collaborators who are expecting a child, the company has assembled two special courses for this moment, namely: The course for pregnant women, held every six months online for both the collaborator who will be a father and the collaborator who will be a mother, and the course on paternity leave, exclusively for collaborators who will be parents.

Embraer grants maternity leave of 180 days and paternity leave of 20 days. In addition, the company also offers daycare allowance to collaborators during the first 18 months after returning from maternity leave.





## WELL-BEING

Designed to take care of the mind and body, this initiative offers free care with a psychologist with immediate support.

**Digital Health:** A mobile service, in which all those assisted by the Bradesco Saúde insurance have medical care through the app with professionals registered throughout Brazil.

**Mindfulness and Self-Care:** A time of the day to take care of yourself. 15 minutes of the day are totally dedicated to self-care, with different types of activities.

**On-site health care and occupational care:** Those who work 100% on-site or in the hybrid model can count on this benefit. Occupational and Assistance Care is a medical outpatient clinic with a health staff always ready to support collaborators, in the case of complaints, questions, or medical referrals.

**Prevention Live Streaming Sessions:** Prevention Live Streaming Sessions are part of the live streaming sessions track at EMpower, which address topics relating to food, sleep quality, integrative medicine, and much more.

**Multidisciplinary Well-Being Team:** A team ready to listen and give full support to collaborators. Embraer offers a staff dedicated to exclusive well-being care, Healthcare staff, and the care of medical and dental insurance operators, to provide the necessary support on a daily basis.

**On-Call 24 hour:** A hotline designed to serve collaborators and direct dependents, at a distance, and assist them, at any time, in emergency situations, such as:

- Funeral assistance to collaborators and direct dependents;
- Accidents at work, traffic, and others;
- Authorization for emergency care relating to the health or dental insurance;
- Emergency assistance to collaborators on business trips.





### VACCINATION BENEFIT

Vaccines are effective, preventing and reducing the spread of diseases. As a way to further the health of its collaborators and direct dependents, Embraer offers the Vaccination Benefit, where the company participates with 80% of the value of some vaccines that are not offered by the government, as well as the annual flu vaccination campaign. In 2022 circa 27,000 people were benefitted.



### HEALTH AND DENTAL INSURANCE

Embraer offers four types of dental insurance for all collaborators and their legal dependents, and the basic insurance (mandatory coverage) is 100% funded by the company, currently there are 31,500 people using the dental insurances benefit.



### HEALTH INSURANCE

Embraer offers a Regional and National health insurance, with accommodation in a ward and apartment, for all collaborators and their legal dependents, with the company's participation in the monthly fees ranging from 70% to 100% of the costs. In 2022, 35,000 people were assisted by the plans.



### PHARMACY BENEFIT

This benefit consists of Embraer's predefined financial participation in the purchase of prescription drugs by collaborators and their direct dependents.



### LIFE INSURANCE

The company offers its collaborators and trainees a Group Life Insurance.



### LABORATORY IN THE UNITS

Thinking of allowing increased convenience in the daily lives of collaborators, encouraging them to keep their exams up to date, the company offers, at the São José dos Campos unit, the services of Laboratório Clínico Sabin.

## 3.2.2. TALENT MANAGEMENT

### Collaborator training

(GRI 404-1)

		2021		2022	
Average hours of training by gender and collaborator category		Men	Women	Men	Women
Administrative	Total number of training hours	6045	2958	7191	4468
	Total number of collaborators in the category	325	226	335	228
	<b>Average training hours per collaborator</b>	<b>18,6</b>	<b>13,1</b>	<b>21,5</b>	<b>19,6</b>
Engineer	Total number of training hours	60349	12273	87790	20560
	Total number of collaborators in the category	2930	511	3026	553
	<b>Average training hours per collaborator</b>	<b>20,6</b>	<b>24</b>	<b>28,7</b>	<b>37,2</b>
Internship	Total number of training hours	10398	5877	12599	11102
	Total number of collaborators in the category	387	253	310	236
	<b>Average training hours per collaborator</b>	<b>26,9</b>	<b>23,2</b>	<b>40,6</b>	<b>47</b>
Leadership	Total number of training hours	29577	4565	24522	5332
	Total number of collaborators in the category	815	120	797	148
	<b>Average training hours per collaborator</b>	<b>36,3</b>	<b>38</b>	<b>30,8</b>	<b>36</b>
Operational	Total number of training hours	202367	21454	263727	34699
	Total number of collaborators in the category	5304	499	5908	719
	<b>Average training hours per collaborator</b>	<b>38,2</b>	<b>43</b>	<b>44,6</b>	<b>48,3</b>

		2021		2022	
Average hours of training by gender and collaborator category		Men	Women	Men	Women
Pilot	Total number of training hours	316	48	572	0
	Total number of collaborators in the category	78	1	84	0
	<b>Average training hours per collaborator</b>	<b>4</b>	<b>48</b>	<b>6,8</b>	<b>0</b>
Professional	Total number of training hours	60814	53281	51223	43581
	Total number of collaborators in the category	1391	1056	1588	1169
	<b>Average training hours per collaborator</b>	<b>43,7</b>	<b>50,5</b>	<b>32,3</b>	<b>37,3</b>
Technician	Total number of training hours	68899	7090	87886	8996
	Total number of collaborators in the category	1949	222	1932	194
	<b>Average training hours per collaborator</b>	<b>35,4</b>	<b>31,9</b>	<b>45,5</b>	<b>46,4</b>
Total	Total number of training hours	438765	107546	535510	128738
	Total number of collaborators	13179	2888	14016	3247
	<b>Average training hours per collaborator</b>	<b>33,3</b>	<b>37,2</b>	<b>38,2</b>	<b>39,6</b>



## Investment on collaborator's training and education (GRI 404-1)

Investment on training and development	2020	2021	2022
Average hours by training and development by FTE [hours]	14	34	38
Average expenditure on training and development by FTE (US\$)	13	48	78

## PERFORMANCE ASSESSMENT (GRI 404-3)

Annually, between January and April, Embraer carries out the Performance Assessment Process, with the purposes of assessing the performance of the entire company, using the Nine in Box\* Matrix tool. Thus, 100% of collaborators are assessed and evaluated from two perspectives:

- 1. Result**
- 2. Behavior**

After the closing of the process, the leader conveys to his team, individually, the results of the performance assessment of each collaborator through performance feedback. One of the outputs of the performance process is the merit cycle, taking into consideration the result of the Performance Assessment.

Thinking about the future, Embraer annually carries out the Potential Assessment, a process that assesses the potential of our collaborators to take on new challenges.

Thus, while the Performance Assessment Process looks into the past, the Potential Assessment looks to the future, making the talent management process robust and helping in the construction of Embraer's succession process, that is, if any leader leaves the company, Embraer already knows which other professional has the ideal profile to hold the position.

\*Tool used to assess the performance of collaborators of a company, allowing to sort professionals in groups, and take specific efforts to improve the performance of each one.

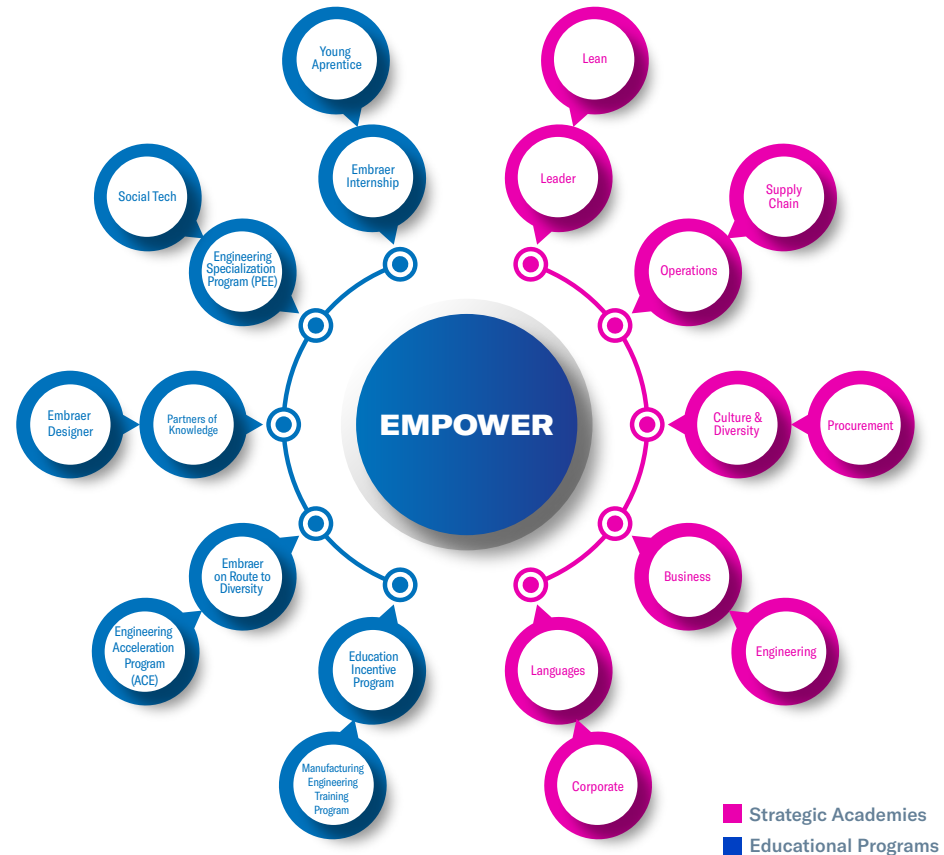


## EDUCATION ECOSYSTEM ACCELERATING CAREERS

(GRI 404-2)

Embraer fosters the culture of learning and believes that each professional is the main player in their own career, and that continuous investment in the training and qualification of people will always be a competitive edge. The company relies on an ecosystem of knowledge generation and dissemination, through partnerships and training initiatives, and empowerment of new talent encouraged to create the most innovative products in the industry of the future.

Throughout the year, Embraer provides educational programs aligned with market trends, always attentive to people's different career moments and plurality. In all these programs, topics such as diversity and respect for people are worked on, in line with the company's culture and strategic goals, supported by an active and permanent learning process.



## » SELF-DEVELOPMENT PLATFORM

Tuned in digital transformation, the self-improvement platform within Empower enables collaborators to set their learning goals in line with their career planning. It relies on an artificial intelligence system that chooses and recommends content for each individual, pursuant to their skills and areas of interest.

## » LEADER'S ACADEMY

It covers the entire leadership lifecycle, from onboarding to training and long-term development efforts targeted at the implementation of corporate strategy. In 2022, the company maintained the pillars of leadership development (Culture, Business, People Cycle, Future of Work, and Diversity), offering programs focused on Hybrid Management, Cultural Evolution, Lean Leadership, Performance, and Potential, Labor Relations, among other relevant topics. Overall, there were 13,828 participations, totaling about 30,000 hours of development for the Embraer leadership.

## » CORPORATE ACADEMY

Underscoring its commitment to be a company recognized by Ethics & Compliance, since 2017 Embraer has been applying the online training in its Code of Ethics for all collaborators. The content is available globally and is part of the mandatory training track for all new collaborators.

In this same track, collaborators also complete the following courses: Occupational Safety, Business Planning, Performance Assessment, Data Protection, Coronavirus Prevention, and Corporate Intellectual Property Policy, which amount to circa 6,000 hours of participation in 2022.





## >> ENGINEERING ACADEMY

As a means to strengthen the aeronautical culture, the training of engineers, technicians, and engineering professionals, establish a systemic vision of products, and foster collaborator careers' improvement, Embraer offers development solutions aligned with the business strategy. In 2022, the engineering academy restructured its curriculum, having as contributors several professionals and specialist areas, and setting 3 guiding pillars of education, namely: Soft Skill, Management and Business, and Product Development.

Regarding the Soft Skill pillar, still in 2022, 27 classes were planned for the year 2023. For Management & Business, more than 15 relevant topics were mapped, in the realms of operational management, finance, and business strategic vision, which will be provided during the year in a gradual way, in a format of live streaming sessions to collaborators.

As for the Product Development pillar in 2022, there was an evolution of educational methodologies and several tracks were designed on the EmPower self-development platform, in virtual format, following the trends of digital transformation and making available to participants the resource of artificial intelligence for real time knowledge assessment.

The technical career tracks containing 15 macro topics were also created and unfolded in more than 40 educational routes, planned to occur in 2023 through synchronous classes and asynchronous content availability.



## >> ACADEMY OF OPERATIONS

It provides a Qualification Program aimed at collaborators who work in the manufacture of aircraft. In 2022, there were 47,968 participations in qualification courses, totaling 182,279 hours of training.

The courses are structured in curricula according to requirements for performance in the production process. The definition of these requirements is carried out in concert with representatives of quality, engineering, safety, and human resources. Internal procedures and normative requirements for each process are considered.

In-person, remote, online, and hands-on learning solutions are offered to enhance collaborators' experience during the learning process. Some qualification tracks have been extended to overseas sites where new local internal facilitators have been trained to ensure knowledge management and speed in the delivery of learning solutions.

## >> BUSINESS ACADEMY

In 2022, the company focused on building the Materials Solution Academy of the Vice Presidency of Services and Support (VSS), making a diagnosis of the knowledge and skills required for the current and future moment, and working on solutions to enhance outcomes through a duly trained team. The academy is still under construction, with the provision of new training and efforts to be developed, however, some training identified in this diagnosis stage has already been carried out, such as: Storytelling, Presenter Communication (oratory), Visual Communication/ slides, Negotiation, Decision Making, Onboarding, in addition to specific technical training.

It is also worth mentioning the creation of a multidisciplinary working group (with Defense & Security, IT, Engineering, and HR) for discussions on the topic Cybersecurity, as well as the construction of an academy through the stages of diagnosis and learning strategy. The next stages are still under discussion and should have developments during the year 2023.

## >> SUPPLY CHAIN ACADEMY

It was created by the Supply Chain and Logistics area with the mission of training collaborators in concepts and best practices of supply chain management, on top of shaping attitudes, posture, and raising people's drive, so that they make the necessary changes in processes and continuous evolution in the pursuit of excellence. In 2022, knowledge pills were started, which are fast courses, two hours long, provided by internal facilitators, in addition to soft and hard skills development programs. Overall, 59 classes were held, with 1,242 attendees, and 191 learning hours. To date, this academy has 65 courses in its tracks.



## >> PROCUREMENT ACADEMY

This academy aims to ensure the training of procurement professionals based on the required skills of each position to meet Embraer's business and strategy needs. By building a learning journey by position/area, it prioritizes key procurement skills revolving around business knowledge, technical knowledge, and behavioral skills. The academy has 27 development topics mapped in its tracks, 3,600 participations and more than 11,500 training hours.

## >> LEAN ACADEMY

Lean Academy is one of the pioneering academies and applies to all areas of the company. It was born as the training program of P3E (Embraer's Business Excellence Program) with a view to furthering organizational learning and disseminating the Lean philosophy. The Lean philosophy is part of the cultural foundation of Embraer's strategic plan. The tracks of this academy involve all professional categories and aims to make Lean knowledge always available and accessible. In 2022, training started on Dojos, which are Lean practical learning rooms.

Two important programs were created for operations using these rooms, Dojos – Lean Leadership, and Lean Attitudes for Coaches. Other programs developed were: Office Floor Management for the Compliance area, track for the continuous improvement agent, and training of Lean Agile Coaching consultants, training these professionals in new skills to support the future challenges of digital transformation.

The academy brought 41 synchronous online courses and 14 remote learning courses, thus fostering education without borders. The Lean academy figures are quite impressive: 64 courses, 457 sessions, 840 training hours, involving about 30,000 participations. A fact that demonstrates the importance of this topic for Embraer staffs was that in 2022 Lean was the second largest skill searched on EmPower.

## >> CULTURE AND DIVERSITY ACADEMY

Among the accomplishments of the year 2022, it is worth emphasizing the development of the concept of the "Culture Flight" journey, and the launch of the "Our Culture with Diversity" training, first of this track, in an asynchronous, gamified online format, for all collaborators in Brazil, USA, EMEA\*, and Asia.

Besides, two other classes of the Psychological Safety Training for Operations Leaders were held, along with conversation circles with leaders, coaches, and teams of Botucatu Operations to discuss concepts and situations experienced involving diversity, equity, and inclusion.

\*Europe, Middle East and Africa





## » PEE – ENGINEERING SPECIALIZATION PROGRAM

In the context of training and development, in 2022 there was an investment of approximately BRL 5 million in this major training initiative. PEE, carried out in partnership with the Technological Institute of Aeronautics (ITA), offers the Professional Master's Degree in Aeronautical Engineering to selected participants who are interested in working in the aviation segment. Classes are taught by professionals of Embraer and professors of ITA, and students have the chance to be admitted by Embraer after the program is completed. In 2022, 61 engineers attended the program. Between July and August 2022, 22 engineers were hired by Embraer.

## » PES – SOFTWARE SPECIALIZATION PROGRAM

In 2022, an investment of approximately BRL 1.4 million was made in this training initiative, with a view to meeting the new demands and opportunities of the current global scenario. The 2022 outcomes were highlighted on page 23 of the 2022 Annual Report.

## » PCEM – MANUFACTURING ENGINEERING TRAINING PROGRAM

This program was designed with the aim of diagnosing and developing current and future skills required by the business in order to further knowledge management and the necessary readiness of people for the advances of manufacturing engineering by 2025.

Launched in August 2022, it has engaged more than 70 professionals, and achieved 500 hours in program structuring, in addition to 2,000 hours invested in the preparation of contents and tracks. During 2022, 50 courses were held, 34 classes with 887 participants, including engineers, analysts, and technicians. The classes developed soft and hard skills through internal facilitators and consulting from the market.

PCEM is based on two phases, the first being a general alignment of concepts and the second focusing on the future of manufacturing and engaged professionals, where topics of industry 4.0 are addressed, with a view to developing the necessary skills for the evolution of processes and practices and mindset in the face of digital transformation. Another front of PCEM is the technical tracks, which are being built by dedicated experts and will be made available gradually in 2023.



## >> ACE – ENGINEERING ACCELERATION PROGRAM

The Engineering Acceleration Program (ACE) released its first class with 35 collaborators graduated in 2022. ACE is targeted at training collaborators having up to 12 months in the company and new hires in 34 courses broken down into the Pillars of Culture, Aeronautics & Business, MAnnual of Excellence in Engineering and DIP, Technical Concepts, Procedures and Tools, Engineering and Soft Skills, and 100% of the training is administered by Embraer's specialized facilitators over a 12-day period.

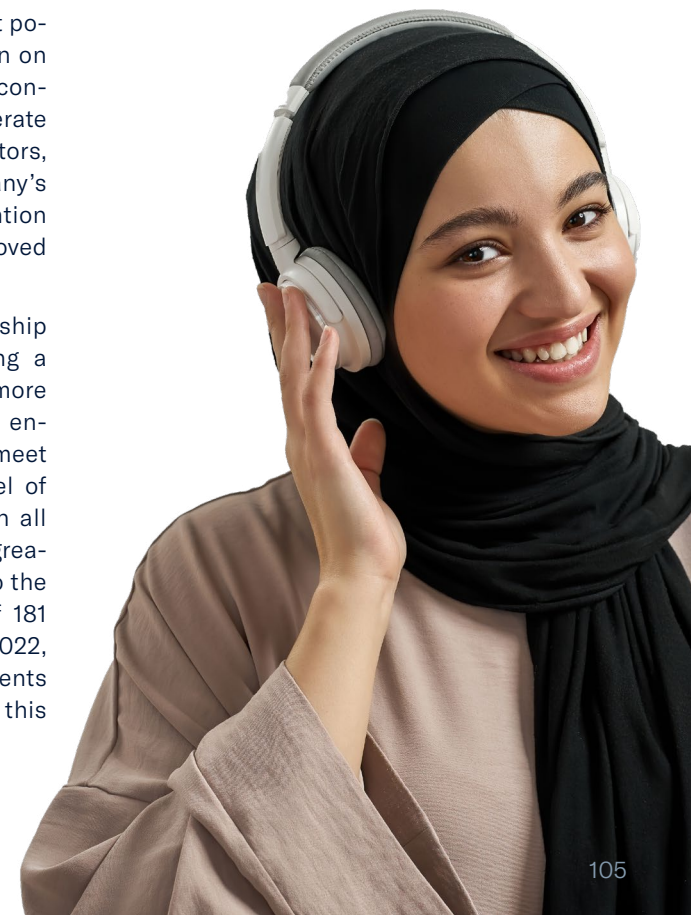
## >> DIVERSITY ROUTE

Held in partnership with Senai of São José dos Campos and Araraquara, the program focuses on training people with disabilities for the labor market, offering theoretical training and practical training in the company. The allocation is performed according to the profile of the vacancies. The program has contributed to increasing the employability of people with disabilities, since 2019 about 100 people have been trained and some continue to pursue careers in various areas of the company, such as Production, Quality, Engineering, Logistics, and Administrative.

## >> LANGUAGE ACADEMY

Embraer has expanded the development policy in the language area, doubling down on the business focus, with more robust, concentrated, and effective ways to accelerate the language learning of our collaborators, with the purpose of meeting the company's challenges globally, investing in retention and benefitting from the resulting improved students' performance.

In 2022, Embraer started a new partnership with the company Lingopass, providing a digital study model, which addresses more strongly the need for protagonism and engagement of student, continuing to meet the company's needs with a good level of customization and great flexibility. With all the changes and the need to ensure greater robustness, the program evolved into the Languages Academy, with the entry of 181 new students in the second half of 2022, closing the year with a total of 352 students and with a great prospect of increasing this number in 2023.





## » KNOWLEDGE PARTNER

Owing to the unremitting search for knowledge, innovation, and technology, the company reformulated the Knowledge Partner Program in which the training of instructors began to be conducted by Embraer professionals, mitigating the need for suppliers, which brought greater quality associated with a lower cost.

In 2022, the Virtual Facilitation Training was created with a view to accelerating the online development of new and capital distance facilitation skills that make a difference in the development of people and Embraer's results. In order to recognize, develop, and further improve Embraer's internal instructors, the company is developing an exclusive academy for this audience, which will be global.

## » EDUCATION INCENTIVE PROGRAM

It aims to further the recognition and development of collaborators, through subsidies for Graduate, MBA, Master's, PhD and Postdoctoral Programs, taking the organization's strategy and business needs into account. Applicable to all collaborators with an indefinite employment contract in all Embraer units.

## » EMBRAER INTERNSHIP

The program was structured targeted at a better experience for trainees during their journey at Embraer, aiming at the development of behavioral skills, and the retention of new talent for the company. In addition to their everyday challenges, they were also responsible for creating a project that contributed to their respective areas, from process improvements to the creation of something new, either a service or product. In addition to the project module, in 2022 the company's Culture Pillars, Soft Skills topics and more knowledge about Embraer's Business Units were addressed. The 2022 outcomes were highlighted on page 108 of this report.

## » YOUNG APPRENTICE

One of the practical initiatives for the constant improvement and responsible insertion of adolescents in the world of work is the Young Apprentice Program. In such program's scope, young people are helped through learning to develop habits necessary for entry and permanence in the labor market. The efforts developed with them are targeted at encouraging the development of their autonomy, allowing the search for improving the quality of life, decision-making, building healthy affective relationships, recognizing themselves as active players and participants within their social group. The 2022 outcomes were highlighted on page 23 of this report.

## » EMBRAER SOCIAL TECH CAREERS

The 2022 outcomes were highlighted on page 25 of the 2022 Annual Report.

## New Collaborator Hires

(GRI 401-1)

New hires	Unit	2020	2021	2022
Total number of new collaborator hires	N.	962	1909	3371
Rate of new collaborator hires	%	5,6	12,7	19,5

Total number and rate of new collaborator hires by gender	Unit	2022
Women	N.	858
	%	25,5
Men	N.	2492
	%	73,9

Total number and rate of new collaborator hires by age group	Unit	2022
Under 30 years old	N.	1598
	%	47,4
30-50 years old	N.	1567
	%	46,5
Over 50 years old	N.	206
	%	6,1

Total number and rate of new collaborator hires by country	Unit	2022
Brazil	N.	2831
	%	84,0
United States	N.	497
	%	14,8
Portugal	N	2
	%	0,06
Other countries	N	41

New hires - STEM	Unit	2022
Women	N.	199
	%	26
Men	N.	561
	%	74



## Collaborator Turnover

(GRI 401-1)

Turnover	Unit	2020	2021	2022
Total number of collaborator turnover	N.	-	-	1347
Rate of collaborator turnover	%	19,5	10,6	8,1
Volunteer total number of collaborator turnover	N.	-	-	956
Volunteer rate of collaborator turnover	%	3,1	5,4	6,0

Total number and rate of collaborator turnover by gender	Unit	2022
Women	N.	245
	%	18,2
Men	N.	1094
	%	81,2

Total number and rate of collaborator turnover by age group	Unit	2022
Under 30 years old	N.	243
	%	18
30-50 years old	N.	902
	%	67
Over 50 years old	N.	202
	%	15

Total number and rate of collaborator turnover by country	Unit	2022
Brazil	N.	888
	%	65,9
United States	N.	427
	%	31,7
Portugal	N.	1
	%	0,1
Other countries	N.	31

## Return to work and retention of collaborators that took parental leave

(GRI 401-3)

Total number of collaborators that were entitled to parental leave, by gender	Unit	2022
Women	N.	3.011
Men	N.	13.706
<b>Total</b>	<b>N.</b>	<b>16.717</b>

Total number of collaborators that took parental leave, by gender	Unit	2022
Women	N.	114
Men	N.	390
<b>Total</b>	<b>N.</b>	<b>504</b>

Total number of collaborators that returned to work after parental leave ended, by gender	Unit	2022
Women	N.	109
Men	N.	377
<b>Total</b>	<b>N.</b>	<b>489</b>

Return rate of collaborators that took parental leave, by gender		2022
Women	%	95,6
Men	%	96,7
<b>Total</b>	<b>%</b>	<b>96,4</b>

Total number of collaborators that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender.	Unit	2022
Women	N.	174
Men	N.	702
<b>Total</b>	<b>N.</b>	<b>876</b>

Retention rate of collaborators that took parental leave, by gender		2022
Women	%	91,1
Men	%	95,1
<b>Total</b>	<b>%</b>	<b>94,2</b>

## Collaborators

(GRI 2-7)

(GRI 2-8, GRI 2-30)

	Female	Male	Other*	Not informed	Total
Total number of collaborators	3247	13988	0	28	17263
Total number of permanent collaborators	2902	13528	0	28	16458
Total number of temporary collaborators	345	460	0	0	805
Total number of non-guaranteed hours collaborators	0	0	0	0	0
Total number of full-time collaborators	2945	13576	0	28	16549
Total number of part-time collaborators	302	412	0	0	714

\*The gender above is self-declaratory.

	Brazil	United States	Portugal	Other Countries	Total
Total number of collaborators	14960	1962	17	324	17263
Total number of permanent collaborators	14203	1956	8	291	16458
Total number of temporary collaborators	757	6	9	33	805
Total number of non-guaranteed hours collaborators	0	0	0	0	0
Total number of full-time collaborators	14249	1962	14	324	16549
Total number of part-time collaborators	711	-	3	0	714

The number of collaborators was considered as the sum of all collaborators, including trainees and apprentices hired directly by the company. For the number of temporary collaborators only those hired for a fixed period, interns, and apprentices were considered. For the number of part-time collaborators, all collaborators with a workload of less than 8 hours per day were considered.

In 2022, the company had 1,851 workers who are not collaborators, but whose work is controlled by Embraer. The most common types of workers in this category are associated with housekeeping, restaurant services, property security, computer services, logistics, and tooling engineering (GRI 2-8).

100% of collaborators are represented by an independent union or covered by collective bargaining agreements (GRI 2-30).

## BENEFITS

(GRI 401-2)

Embraer has a broad package of benefits that covers 100% of its collaborators across the globe, which may have small differences owing to market practices and local reality of the country or region in which it is located.

In Brazil, where more than 85% of its workforce is allocated, the benefits offered by the company are: Health Insurance, Dental Insurance, Life Insurance, Private Pension, restaurants in the operating units, Meal Voucher, Food Voucher, Maternity Leave of 180 days and paternity leave of 20 days, flexible working hours, alternative work models such as 100% remote and hybrid, Day Care Allowance, Pharmacy Benefit, and Vaccine Benefit.





## 3.2.3. DIVERSITY

### Diversity in Governance Bodies

(GRI 405-1)

Composition of Governance body	Unit	2020	2021	2022
Women	%	9	15	15
Men	%	91	85	85
Under 30 years old	%	0	0	0
30-50 years old	%	8	8	8
Over 50 years old	%	92	92	92
<b>Total people number</b>	<b>N</b>	<b>11</b>	<b>13</b>	<b>13</b>

Restatements of information (GRI 2-4): In the previous Annual Sustainability Report (accounting year 2021), the total of 11 people composing the Board of Directors was reported, but the accurate information is 13 people, as reported in report 20F-2021 page 87. The composition of the board remains the same for accounting year 2022.



## Workforce composition by gender and collaborator category

(GRI 405-1)

Collaborator's diversity	Gender	2020	2021	2022
Administrative	Women (%)	43	41	40
	Men (%)	57	59	59
	Not informed (%)	-	-	0,2
	<b>Total people number</b>	<b>571</b>	<b>549</b>	<b>563</b>
Engineer	Women (%)	15	15	15
	Men (%)	85	85	85
	Not informed (%)	-	-	0
	<b>Total people number</b>	<b>3383</b>	<b>3441</b>	<b>3615</b>
Internship	Women (%)	36	41	43
	Men (%)	64	59	57
	Not informed (%)	-	-	0
	<b>Total people number</b>	<b>436</b>	<b>640</b>	<b>546</b>
Leadership	Women (%)	12	13	16
	Men (%)	88	87	84
	Not informed (%)	-	-	0
	<b>Total people number</b>	<b>936</b>	<b>935</b>	<b>945</b>

Collaborator's diversity	Gender	2020	2021	2022
Operational	Women (%)	8	9	11
	Men (%)	92	90	89
	Not informed (%)	-	-	0,4
	<b>Total people number</b>	<b>5870</b>	<b>5803</b>	<b>6627</b>
Pilot	Women (%)	0	1	0
	Men (%)	100	99	100
	Not informed (%)	-	-	0
	<b>Total people number</b>	<b>81</b>	<b>79</b>	<b>84</b>
Professional	Women (%)	43	43	42
	Men (%)	57	57	58
	Not informed (%)	-	-	0
	<b>Total people number</b>	<b>2280</b>	<b>2447</b>	<b>2757</b>
Technician	Women (%)	10	10	9
	Men (%)	90	90	91
	Not informed (%)	-	-	0,05
	<b>Total people number</b>	<b>2086</b>	<b>2171</b>	<b>2126</b>
Total	Women (%)	17	18	19
	Men (%)	83	82	81
	Not informed (%)	-	-	0,2
	<b>Total people number</b>	<b>15643</b>	<b>16067</b>	<b>17263</b>

## Workforce Composition by Age Group

(GRI 405-1)

	Unit	2020	2021	2022
Under 30 years old	%	18	15	19
30-50 years old	%	70	74	69
Over 50 years old	%	12	11	12

## Ethnicity and Other Minorities

(GRI 405-1)

Workforce composition - Ethnicities and other minorities (%)	2020	2021	2022
Asian	2	2	2
Black or African American	12	13	13
White	86	85	71
Indigenous	-	-	0,05
Not informed	-	-	14
People with disabilities	4	5	5

Note: For people with disabilities, data was considered only from units in Brazil.

## Women in Leadership

(GRI 405-1)

Women in leadership (%)	2020	2021	2022
Women's participation in total workforce	18	18	19
Women's participation in all management positions, including junior, medium and high	15	13	16
Women's participation in junior management positions, i.e. first level of management	16	15	17
Women's participation in high management positions i.e. no more than two levels apart from CEO or comparable positions	11	13	15
Women's participation in managerial positions in revenue-generating functions (e.g. sales)	17	8	0
Women's participation in positions related to STEM (Science, Technology, Engineering and Mathematics)	19	17	17

Restatements of information (GRI 2-4): (i) In the previous Annual Sustainability Report (accounting year 2021), it was reported that the total participation of women in management positions in revenue-generating positions was 30% in 2021, but this number accounted for all women, regardless of whether they hold management positions. From this report, only women in management positions (junior to senior) will be accounted for. (ii) Embraer accounts for positions that have the word sales, and intends to improve this parameter in the future to encompass other revenue-generating roles.

## Gender Pay Indicators

(GRI 405-2)

Ratio of the basic salary of women to men for each collaborator category	%	2022
Administrative	%	86
Engineer	%	90
Internship	%	100
Leadership	%	87
Operational	%	74
Pilot	%	-
Professional	%	89
Technician	%	74

## Gender Pay Indicators

(GRI 405-2)

Indicator	Unit	Difference between men and women collaborators
Mean gender pay gap	%	8%
Median gender pay gap	%	0%
Mean bonus gap	%	14%
Median bonus gap	%	5%

Note: Data Coverage (% FTEs): 95% (Apprentices, Interns, and Eve collaborators were not considered).





## COMPENSATION POLICIES APPLIED TO MEMBERS OF THE HIGHEST GOVERNANCE BODY AND SENIOR EXECUTIVES

(GRI 2-19)

Embraer currently has a Management Compensation Policy in force that covers all directors and the Executive Compensation Policy, which encompasses all its executives, and its last reviews were approved by the Board of Directors on October 26, 2018 and November 11, 2021, respectively.

Both aim to attract and retain highly qualified professionals who are aligned with the company's principles and values and with the shareholders' objectives. With that in mind, the company guides its policies by following up the external environment and annually compares compensation practices with reference markets, composed of competing companies in the segments in which it operates, Brazilian multinationals, publicly traded companies or those that have a compensation strategy similar to that which Embraer practices.

### >> STATUTORY BOARD

The total compensation sums are planned annually based on market research with companies of equivalent size, complexity, and challenges to those of Embraer. Through these surveys, we seek to define not only the amounts paid, but also the proportionality of its components (Fixed and Variable Compensation, Short Term, and Long Term). The company prioritizes the retention of its executives and aims to maintain and attract highly qualified officers and key personnel, aligning their interests with those of its shareholders. In addition, the purpose is to ensure that executives who effectively contribute to the best performance of the company and its securities participate in the result of their contribution.

**Fixed Compensation:** it is defined annually from the market references. The Board of Directors adjusts such amounts to the extent it deems necessary each year.

**Benefits:** Group Life Insurance, Health Insurance, and Private Pension in the same way offered to Embraer's collaborators.

**Short-Term Incentives ("ICP"):** Board members are entitled to variable compensation and are eligible to participate in short-term incentive plans as a reward for achieving goals that support Embraer's short-term strategy.

**Long-Term Incentives ("ILP"):** Board members are eligible to participate in long-term incentive plans, which, through a phantom share mechanism and the Stock Option Program, reward executives for achieving goals that support the company's medium and long-term strategic objectives.



Learn more:

Management Compensation Policy

## » BOARD OF DIRECTORS

The members of the Board of Directors receive a fixed monthly fee and are offered, optionally, Group Life Insurance and Health Insurance, provided that they assume all the inherent costs. There is no variable compensation for this body. It is understood that the exclusive payment of a fixed compensation to the members of the Board of Directors is intended to be in line with best market practices.

## » PERFORMANCE INDICATORS (GRI 2-19)

The performance indicators that are taken into account to ascertain the short-term variable compensation are (i) annual assessment of the “Action Plan”, an instrument signed with each statutory and non-statutory officer annually containing the results intended by Embraer for that year and the efforts planned for each one, so that such results are achieved; and (ii) the result of the company’s overall performance.

Thus, ICP and ILP compensation vary according to the company’s economic results and operating result. ICP is impacted by the assessments of the individual Action Plans, ILP is related to the appreciation of the shares in the company and performance goals

established specifically in the Plan.

In the Short-Term incentive, the amount to be actually distributed to the executives each year is linked to the respective individual Action Plans and its calculation will vary directly with the achievement of the results defined therein. The content of the Action Plan is reviewed annually through the Business Planning cycle and approved by the company’s Board of Directors.

Therefore, each executive is assessed annually according to the achievement of their specific Action Plan and their short-term variable compensation is influenced by this result.

## » PROCESS FOR DETERMINE COMPENSATION (GRI 2-20)

Embraer’s compensation practices and policies consider applicable laws and general market practices or by segment, as well as the country and region where the company operates. The definition, implementation and/or change of benefits go through market analysis, economic/ financial feasibility assessments, as well as their impact on the compensation package of Embraer collaborators.

The Board of Directors annually assesses the company’s compensation policy, upon recommendation of the People and ESG Committee, which has this topic as a recurring agenda in its meetings.

## » ANNUAL TOTAL COMPENSATION RATIO (GRI 2-21)

The ratio between the total annual compensation of the highest paid individual in the organization and the average total annual compensation of all collaborators (excluding the highest paid) in 2022 was: 38.3 times, excluding ILP – Long-Term Incentive.

## 3.2.4. SUPPLIER ASSESSMENT

(GRI 3-3)

Supply Chain Management is a strategic area led by highly qualified people, connecting Embraer's business needs to the global supplier base, ensuring value generation within the highest standards of ethics, transparency, and Compliance.

Embraer has a large and intricate supply chain, made up of two categories of supply (direct and indirect), which account for more than 3,500 suppliers in 62 countries around the world.

The company's Global Procurement Policy is intended to establish the guidelines for the procurement of goods, services, and industrialization of products to meet the needs of Embraer, its controlled companies, customers, and other stakeholders.

Embraer's Code of Ethics and Conduct, as well as other existing internal policies

and procedures that define the requirements concerning respect for privacy, handling of confidential information, anti-trust laws, anti-corruption practices, prevention of money laundering, and social and environmental requirements, should be followed and respected by all those involved in the procurement processes.

Any and all procurement processes should be based on the principles of integrity and competitive equality, as a means to ensure that the procurements of goods, services, and industrialization of the company are made seeking to achieve the highest quality standards, within the conditions of greatest value generation, at the right time and with the least risk to the company and society.





Business Partners are expected to apply the best practices for preserving the environment, as well as health and safety. Furthermore, they are subject to the process of reputational check (due diligence) before entering into any formal commitment, or starting any commercial transaction. For Business Partners identified as critical, Embraer performs risk monitoring through risk assessment tools.

Applicable laws regarding import and export control (especially ITAR\* and EAR\*, accordingly) of goods, services, and industrialization should be met and complied with in keeping with the procedures and policies established by the company.

It is forbidden to procure goods, services, and industrialization that is not carried out by the Supply areas and delegated areas, and in accordance with the Global Procurement Policy, as well as to ensure a fair and transparent process in competition procedures, guaranteeing the equality of treatment for all participating companies.

Embraer has a Global Supplier Management Procedure from the product development phase, serial production, to after-sales, following the Compliance standards and Embraer Business Excellence criteria, providing continuous improvement and undertaking activities in an ethical, environmentally sustainable, safe, and health-promoting manner.

The Supplier Management area is responsible for managing and ensuring the good performance of suppliers in fulfilling the agreed contractual conditions, in addition to cost management. To support this process, the area monitors the metrics that demonstrate the supplier's adherence to the conditions agreed, as well as the spotting of the need to create an action plan with non-adherent suppliers.

\*International Traffic in Arms Regulations.

\*\*Export Administration Regulations.



## SELECTION OF NEW SUPPLIERS

(GRI 308-1 and 414-1)

100% of the new suppliers were selected based on key criteria and committed to comply with the clauses described in the annex “Socio-Environmental Specification,” which is an integral part of the supply agreement, and establishes that new suppliers should meet the environmental, occupational safety, and social responsibility legal requirements applicable to their industry, including obtaining licenses and certificates, if applicable in their legislation.

## ASSESSMENT OF NEGATIVE ENVIRONMENTAL IMPACTS ON THE SUPPLY CHAIN

(GRI 308-2)

All contracts for supply, services, and industrialization of products have socio-environmental requirements, which those involved should comply with and implement. The mandatory submission documents and notifications to Embraer is stipulated in the contracts between the parties, being accepted by the suppliers.

The supplier, through its supply chain, is expected to comply with applicable environmental laws, such as the European REACH\* regulation, CEPA\*\*, TSCA\*\*, and other relevant guidelines that may affect Embraer products. It should also ensure compliance with applicable environmental laws, including those of subcontractors. Through the applicable regulations, we carry out assessments, based on internal criteria, which demonstrate if there are negative impacts to be avoided and/or fixed.

\* Registration, Evaluation, Authorization and Restriction of Chemicals.

\*\* Canadian Environmental Protection Act

\*\*\* Toxic Substances Control Act.

### » MATERIAL RESTRICTIONS BY ENVIRONMENTAL REGULATIONS

As regards the use of materials that contain substances restricted by environmental regulations, Embraer has a dedicated management staff, DIPAS - Integrated Development of Environmentally Sustainable Product. The staff works to follow up the evolution of environmental laws, collect information on restricted substances present in articles throughout the supply chain, identify use in products and manufacturing processes; additionally, it also directs the applications identified to Product Engineering for analysis and execution of the mitigation plan and management of the alternative development plan, so that products and processes do not pose occupational or environmental risks throughout their life cycle. The sustainability of products is thus guaranteed to customers in different countries, as well as the occupational and environmental integrity in all phases of operation, maintenance, and end of life of aircrafts.

## ASSESSMENT OF NEGATIVE SOCIAL IMPACTS ON THE SUPPLY CHAIN

(GRI 414-2)

The quality and safety of Embraer products are capital to the business. The company undertakes to deliver products that meet or exceed applicable governmental, industry standards, ensuring safety and quality to the end customer. With this in mind, Embraer strives to ensure that our supply chain is committed and aligned with social and environmental issues.

Embraer requires the supplier to adhere to the company's social standards, not engage and not allow others to engage child or compulsory labor, nor adopt or allow others to adopt unacceptable labor practices.

As part of the social impact management process, the company has established in contracts the Conflict Minerals clause whereby suppliers report

the origin of the minerals contained in the products supplied by them and their subcontractors to Embraer, under the terms of the applicable American law (Dodd-Frank Law).

The company continuously works to quell the social impacts of its activities, so one of the initiatives was to become an integral part of several global Conflict Minerals programs, such as: Aerospace Industries Association ("AIA"), International Aerospace Environmental Group ("IAEG"), and the Responsible Business Alliance - Responsible Minerals Initiative ("RBA-RMI").

Every year the company conducts due diligence in its supply chain to ascertain if any of its products come from conflict zones. Additional information is available in the 20-F report.

## SUPPLIERS WHERE THE RIGHT TO FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING MAY BE AT RISK

(GRI 407-1)

The agreement with our suppliers contains clauses that determine that they should comply with the legal obligations and principles of the Global Compact to which Embraer is a signatory, ensuring that the right to freedom of association and collective bargaining is fulfilled.

Suppliers are continuously monitored during the term of contract and a social assessment is revalidated every two years. The Helpline is another tool to ensure these rights, ensuring that any possible violation can be reported by anyone.



### Learn more:

- [Suppliers' Requirements](#)
- [Ethics & Compliance](#)

## MANAGEMENT OF RISKS ASSOCIATED WITH THE USE OF CRITICAL MATERIALS

(RT-AE-440a.1.)

Embraer has a vast and complex supply chain across the world. Critical suppliers are identified by means of two important matrices whose combined results allow Embraer to define the best strategy to evaluate and monitor potential risks:

### >> EXTERNAL RISK MONITORING

#### Risk Assessment Tools

Risk assessment tools allow Embraer to cover risk analysis, evaluation, and control with a holistic approach in different criteria, such as:

- Natural hazards
- Geopolitical and economical risks
- Financial, business-related
- Environment/health/safety
- Quality
- Engineering
- Post-sales
- Manufacturing
- Supply Chain

**1. STRATEGIC MATRIX:** Following the same concept of the Kraljic Matrix, our suppliers are classified according to the complexity of products and services provided to Embraer, as well as the total expenditure during the contract's validity. That information is combined with the level of impact on Embraer's business. The result is the identification of the critical and strategic suppliers.

**2. RISK MATRIX:** This matrix provides a two-dimensional picture which better estimates the supplier's vulnerability versus the impact on Embraer's business. Embraer can identify the critical suppliers which will require more control.

**3. CONTRACTS:** Embraer guarantees to its suppliers the fulfilment of the processes of risk analysis and environmental and health requirements, through clauses based on the company's Code of Ethics and Conduct; such clauses define the supplier's obligation of abiding by the sector's specific laws, as well as of complying with environmental standards and human rights regulations.

## >> INTERNAL RISK MONITORING

Embraer has a robust S&OP process that directs the supplying strategies in order to mitigate shortages, and a Supplier Management Program based on four pillars:

- Performance
- Cost & Efficiency
- Business Growth
- Partnership

### 1. STOCK STRATEGY

For critical materials identified, long-term planning is shared with our suppliers to mitigate shortages in the production line.

### 2. SUPPLIER MANAGEMENT

Supplier management is performed based on three big fronts:

- a. Embraer has a program developed by the Purchase Team which fosters the integration of all stakeholders and a sustainable monitoring of the suppliers' performance evolution.
- b. Leadership Meetings: Weekly meetings with Embraer's directors and related areas to present the suppliers' score-cards, dashboards and action plans.
- c. Executive meetings: quarterly meetings between Embraer's high-level leadership and Suppliers, where the results of the performance monitoring are presented, and the action plans are discussed. This forum also allows the discussion of process improvement, competitiveness and sustainability across all supplying bases.

## LOCAL SUPPLIERS

(GRI 204-1)

16% of the purchasing budget of the important operational units in the 2022 cycle was allocated to suppliers located in Brazil. The important operational units are defined as the productive plants located in Brazil: São José dos Campos, Botucatu, and Gavião Peixoto.





## 3.2.5. LOCAL COMMUNITIES

The following table shows the main results of the work carried out by the Instituto Embraer and Embraer Foundation in 2022.

<b>Highlights from Instituto Embraer (Brazil) and Embraer Foundation (United States)</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of organizations supported by Instituto Embraer and Embraer Foundation	13	36	43
Volunteers engaged worldwide	891	895	1296
Hours allocated to volunteering (hours)	6677	8145	5891
<b>Highschool Program (only in Brazil)</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of graduates on both Embraer high schools since 2002	4120	4440	4760
Number of Embraer's high school students accepted in public or private universities with a scholarship*	80%	84%	75%*
University students awarded by the scholarship fund (cumulative)	768	768	768

\*Data was calculated on March 30th, 2023.



# GOVERNANCE

## Indicators



## 3.3.1. CORPORATE GOVERNANCE

(GRI 3-3)

As a publicly traded corporation, Embraer adopts corporate governance processes and policies that meet the regulations of the markets in which it trades its shares (NYSE, in the United States, and B3, in Brazil) and value transparency, integrity, and balance in strategic decisions.

Listed in Novo Mercado, the most demanding segment of the Brazilian stock exchange, the company has a capital model without a controlling group or controlling shareholder. Embraer's policies maintain the standards of behavior expected and mainly reflected in the Code of Ethics and Conduct. All policies and procedures require colla-


borators and business partners to always act in keeping with all applicable laws and regulations and internal company guidelines.

Embraer, in order to meet the highest levels of Corporate Governance, has the policies recommended by the "Code of Best Governance Practices," such as: Extra Audit Service Procurement Policy, Risk Management Policy, Negotiation and Disclosure Policy, Board of Directors' Appointment and Training Policy, Related Parties Policy, Compensation Policy, among others, and these policies are published on the Embraer Investor Relations website, aiming to ensure transparency about the company's information.



The company is also associated with relevant governance forums, such as the Brazilian Institute of Corporate

Governance (IBGC) and the Brazilian Association of Publicly-Held Companies (Abrasca).

Lastly, the Anticorruption Policy is also a reference document of the company, for establishing guidelines to ensure, in addition to compliance with laws, the appropriate management of business relationships and the prevention of conflicts of interest, as well as principles for donations and sponsorships, for offering and receiving gifts and entertainment, and contracting or conducting business with third parties.



**Learn more:**

-  [Corporate Governance Model](#)
-  [Embraer Policies](#)





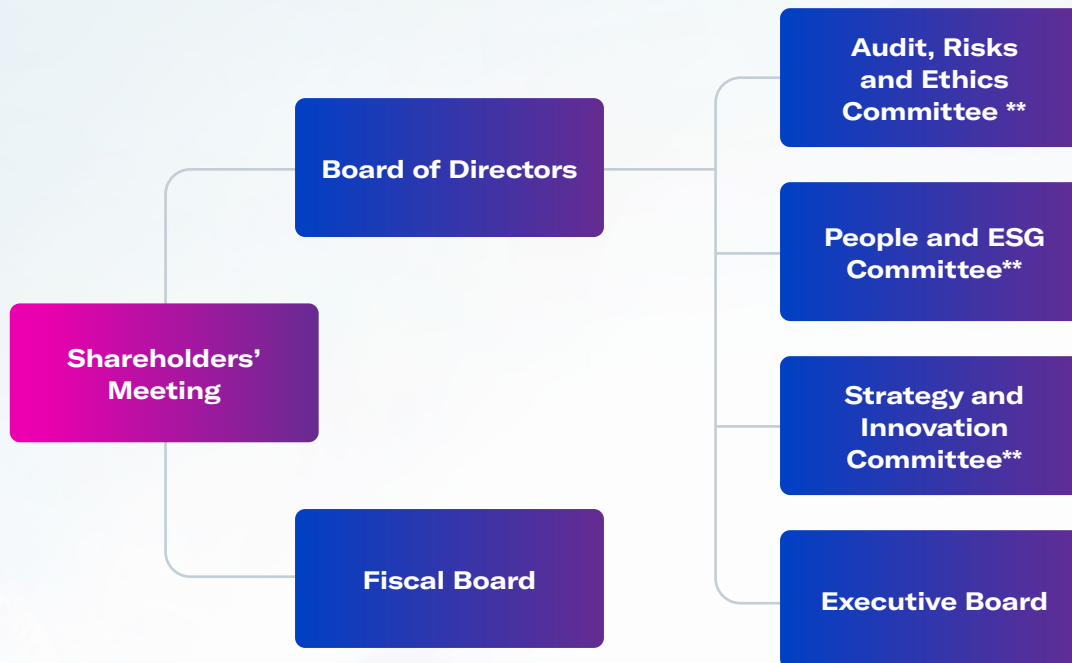
## GOVERNANCE STRUCTURE AND ITS COMPOSITION

(GRI 2-9)

The main bodies of Embraer's Management are the Board of Directors and its three Advisory Committees (Strategy and Innovation Committee, Audit, Risks and Ethics Committee, and the People and ESG Committee), in addition to the Fiscal Board and the Executive Board.

\* Fiscal Board - Independent body - Article 43 Articles of Incorporation

\*\* Committees - Advisory bodies to the Board of Directors - Article 34 Articles of Incorporation





In line with a transitional provision in the Articles of Incorporation (biennium 2021/2023), the Board of Directors currently has 13 members, 10 of whom are Independent. The Brazilian Government, holder of the special class share (Golden Share), has appointed a director and an alternate and the collaborator shareholders and non-shareholders appoint 2 other directors and their respective alternates. Currently, the company's Board of Directors is made up of 11 men and 2 women, with 11 members being Brazilian residing in Brazil, and 2 North Americans residing in the United States. Advisors and committee members have relevant professional experiences in different sectors, with emphasis on the aeronautical industry, innovation, and technology, ESG, and finance.

The company's Articles of Incorporation and the Bylaws of the Board of Directors provide that the main powers of the board are: to establish the overall guideline of the company's business, to elect and dismiss the company's officers, to supervise the management of the company's officers, to review the quarterly results of the company's operations, to review the Management Report and the accounts of the Executive Board

resolving on their submission to the shareholders' meeting, to call the Independent auditors to provide the necessary clarifications about the company, to approve the annual and multiannual budgets, strategic plans, expansion projects and Investment programs of the company, as well as to follow up their execution.

Advisory committees consist of at least 3 and at most 5 members. The composition and Bylaws of each committee are available on Embraer's Investor Relations website. The summary of the assignments of each committee is described below:

### CESTI - Strategy and Innovation Committee

Advises the Board of Directors in the establishment of the Company's Strategic Plan and Action Plan, focusing on objectives, macro projects, and assessments of potential new business opportunities and assessments of topics pertaining to Innovation, digitalization, and technological trends.


### CARE - Audit, Risks and Ethics Committee

Advises on the Identification and management of business risks Inherent to Embraer's activities, on the appropriateness of risk management models,



guidelines, and policies and on the measurement of Management and Accounting Information disclosed to the public and regulatory bodies.

### CPESG - People and ESG Committee

Advises the Board of Directors with regard to the election and dismissal of Embraer's statutory officers and establishment of their assignments, definition of the salary and human resources policy, assessment process, advising the Chairman of the Board, Directors, the Board and its Advisory Committees, among other duties. The committee discusses and oversees the company's ESG strategy, the management of climate-related risks and opportunities, as well as monitoring the main ongoing projects, the company's ESG schedule, challenges, and goals.



**Learn more:**

-  [Golden Share](#)
-  [Advisory Committees](#)

All committees report on the matters dealt with at their meetings at the first subsequent regular meeting of the Board of Directors. Furthermore, periodic discussions on ESG topics, such as visibility and discussion of environmental and climate change issues and Governance & Compliance training on matters relevant to the members of the Board of Directors, are part of the schedule of the Board of Directors' meetings.

The Fiscal Board reports directly to the Shareholders' Meeting and is responsible for overseeing administrative management, such as reviewing management activities, and financial statements.

The Executive Board, in turn, is the body responsible for conducting the company's business following the provisions of the Strategic Plan and the Action Plan, both approved by the Board of Directors.

## CHAIRMAN OF THE HIGHEST GOVERNANCE BODY

(GRI 2-11)

The Chairman of Embraer's Board of Directors is an independent member of the Board and does not hold a senior executive position at the company. Not only for the Chairman, but Embraer's rule is that no member of the Board of Directors may hold the position of Executive Officer of the company, as provided for in Article 27, Paragraph 5 of the Articles of Incorporation.



## ROLE OF THE HIGHEST GOVERNANCE BODY IN OVERSEEING IMPACT MANAGEMENT

(GRI 2-12)

The Company's Articles of Incorporation and the Bylaws of the Board of Directors provide that the main powers of the Board are:

- a) to establish the overall guideline of the company's business;
- (b) to elect and dismiss the company's officers;
- (c) to supervise the management of the company's officers;
- (d) to assess the quarterly results of the company's operations;
- (e) to review the Management Report and the Executive Board's accounts, resolving on their submission to the Shareholders' Meeting;
- (f) to summon the independent auditors to provide any clarifications it deems necessary about the company;
- (g) to approve Embraer's annual and multiannual budgets, strategic plans, expansion projects, and investment programs, as well as follow up their execution, among others.

The supervision of the Board of Directors is performed through the meetings of the body that occur ordinarily 8 times a year or extraordinarily whenever necessary in connection with the reporting of advisory committees and topics that the board of directors deems relevant, in addition to those that are already part of the recurring agenda of meetings.

According to Article 7, I, of the Bylaws of the Board of Directors, the Board of Directors is responsible for spotting, supervising, and following up the risks to which Embraer is exposed, whether financial, legal, fiscal, operational, commercial or other. Consequently, to approve Embraer's Corporate Risk Management Policy and review it whenever necessary, monitor its implementation, and ensure the existence of a crisis management plan that allows the company to safely overcome them.



## DELEGATION OF RESPONSIBILITY FOR IMPACT MANAGEMENT

(GRI 2-13; 2-16)

The Board of Directors duties are:

- (a) Election of the Executive Board;
- (b) following up and assessing the performance of Embraer's Chief Executive Officer, as well as the other Officers, according to Article 7, II, of the Bylaws of the Board of Directors. The Executive Board, which is made up of at least 4 and at most 11 members appointed by the Board of Directors, is responsible for managing the company, following the provisions of the Strategic Plan and the Action Plan approved by the Board of Directors.

The relevant topics of interest to Embraer are brought to the attention of the Board of Directors' members at the Body's meetings. The Board of Directors meets ordinarily 8 times a year or whenever it deems necessary to deliberate on extraordinary topics.

## ROLE OF THE HIGHEST GOVERNANCE BODY IN SUSTAINABILITY REPORTING

(GRI 2-14)

CPESG advises the Board of Directors on the analysis, recommendation, and follow-up of Embraer's socioenvironmental strategy and discusses the main projects in progress. The materiality process and the definition of material topics are approved by the committee members.





## 3.3.2. ETHICS AND COMPLIANCE

### MECHANISMS FOR SEEKING ADVICE AND RAISING CONCERNS

(GRI 2-26)

Embraer's Compliance Department has an independent structure and direct reporting to the Audit, Risk and Ethics Committee, as well as a reporting channel structured and available 24/7, in the languages of the countries where the company operates, allowing any individuals (collaborators or not) to bring questions or concerns.

Moreover, the governance of the area was structured in order to create the roles of Compliance ambassadors and agents in several areas of Embraer, so that support can also be given by collaborators in these areas, who are periodically trained on Compliance techniques.

In addition, the Code of Ethics and Conduct and other policies pertaining to it are freely

and easily accessible through the company's intranet and establish the main guidelines to be met.

Any concerns regarding Embraer's business conduct can be brought to the Compliance area itself or through the widely disclosed and available whistleblowing channel — Helpline, as mentioned above. The channel ensures anonymity and confidentiality, as well as non-retaliation to whistleblowers in good faith.



Learn more:



### OPERATIONS ASSESSED FOR RISKS RELATED TO CORRUPTION

(GRI 205-1)

During periodic assessments conducted by the Compliance Department, risks, when identified, are properly addressed. When applicable, such risks are shared with the competent authorities for discussion and implementation of mitigation measures, which are continuously monitored. The total number and percentage of operations assessed are internal information and, for this reason, will not be disclosed in this report.

## COMMUNICATION AND TRAINING ABOUT ANTI-CORRUPTION POLICIES AND PROCEDURES

(GRI 205-2)

All members of the Audit, Risk and Ethics Committee (CARE) – advisory body to the Board of Directors were informed about the anti-corruption policies and procedures applied by Embraer, broken down by region. 100% of CARE members received training pertaining to anti-corruption and related topics in 2022.

The presentation of the Code of Ethics and Conduct and its respective training is mandatory for 100% of collaborators, and the training is refreshed every two years. The Global Anti-Corruption Policy is presented to all collaborators at the time of their admission to Embraer, being available on the intranet and on the external website.

Within the scope of Embraer's third-party Due Diligence process, which is an integral part of the hiring flow, business partners that may present potentially relevant anti-corruption risks are aware of the Code of Ethics and Conduct and the Global Anti-Corruption Policy.



## CONFIRMED INCIDENTS OF CORRUPTION AND MEASURES TAKEN

(GRI 205-3)

On October 24, 2016, Embraer finalized the terms of the agreements for the resolution of Investigations with the US authorities (Department of Justice (DOJ) and Securities and Exchange Commission (SEC), and Brazilian authorities (Federal Public Prosecutor's Office (MPF) and Securities Commission (CVM). The investigation involved sales transactions that occurred in India, the Dominican Republic, Mozambique, and Saudi Arabia. As part of the agreement, the company agreed to maintain external and independent monitoring for up to 3 years to ensure full compliance with the terms of the agreement. The company also agreed to payments in an aggregate amount of about USD 206 million to US and Brazilian authorities. The agreement also provided that as long as the terms are fully met, no charges will be brought against the company.

In 2020, Embraer successfully completed third-party monitoring, as well as the other terms of the deferred prosecution agreement (DPA) entered into with the DOJ and the consent agreement

entered into with the US Securities and Exchange Commission on October 24, 2016.

In November 2021, Embraer was formally summoned in the courts of India with respect to a criminal proceeding filed by the Directorate of Enforcement in India against entities and individuals, including Embraer and ECC Investment Switzerland AG (Embraer's wholly-owned subsidiary) regarding the transaction in India that was contemplated in the investigations described in the first paragraph.

The above case is in its initial phase and there is currently no appropriate basis for estimating the additions or quantifying any contingency in this regard. The company is not aware of other procedures pertaining to the scope of the agreements entered into with the authorities of the United States and Brazil in 2016. To date, Embraer believes that there is no reasonable basis to estimate provisions or quantify possible contingencies relating to such case.





## TOTAL AMOUNT OF MONETARY LOSSES AS A RESULT OF LEGAL PROCEEDINGS ASSOCIATED WITH INCIDENTS OF CORRUPTION, BRIBERY, AND/OR ILLICIT INTERNATIONAL TRADE

(RT-AE-510a.1)

In 2022, the company had no pecuniary losses pertaining to lawsuits associated with incidents of corruption, bribery and/or illicit international trade.

Since the start of the internal investigation process in 2011, Embraer has engaged on a comprehensive effort to improve and expand its compliance program worldwide. This multi-year task involved the review of compliance systems. Some of the main improvements include the creation of a Compliance Department; the appointment of a Chief Compliance Officer who is currently also General Coun-

sel who for Compliance issues reports directly to the Risk, Audit and Ethics Committee of the Board of Directors; the development of a process for monitoring hiring and payments to third parties; improvements in Compliance policies, procedures, and controls; improvement of anonymous and other whistleblower channels; and the development of a comprehensive training and education program aimed at maintaining and reinforcing a strong Compliance culture at all levels of Embraer globally.





## DISCUSSION OF PROCESSES FOR TO MANAGE BUSINESS ETHICS RISKS THROUGHOUT THE VALUE CHAIN

(RT-AE-510a.3)

Embraer has established a single due diligence process for third parties with which it maintains any type of business relationship, including customers, suppliers, business partners, and government entities.

The level of scrutiny of the process is established depending on the degree of risk that the third party represents (risk-based approach), and takes into account several factors, such as exposure to public bodies, Embraer's powers of representation, countries in which it operates, payment structure, the type of activity to be conducted, existence of adverse media, existing legal proceedings, among others.

The process is conducted and supervised independently by the Compliance Department, which may request additional information about the third party. External consultants may be engaged for thorough assessment in more sensitive situations and/or geographies with limited access to information.

The actual engagement and/or business establishment will be a consequence of the final assessment issued by the Compliance Department. Lastly, Anti-Corruption Compliance clauses are included in Embraer's contracts.

## INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN

(GRI 406-1)

The company had a case of discrimination received through Embraer's whistleblowing channel (Helpline), which was quickly ascertained as actually grounded in 2022, with appropriate measures applied immediately.

## COMPLIANCE WITH LAWS AND REGULATIONS

(GRI 2-27)

In the period covered by this report, no fine or pecuniary penalty was applied to Embraer for significant cases of noncompliance with laws and regulations.

## COUNTRIES AT HIGH RISK OF CORRUPTION

(RT-AE-510a.2)

Revenue from countries rated "E" and "F" according to the Band of Transparency International's Government Defense Anti-Corruption Index in 2022 was approximately USD 534,685 million and about USD 85,187, respectively.

### 3.3.3. DATA SECURITY

#### NUMBER OF DATA BREACHES; PERCENTAGE INVOLVING CONFIDENTIAL INFORMATION

(RT-AE-230a.1)

Embraer employs cybersecurity solutions and procedures to ensure the most appropriate and applicable handling, collection, and availability of data and information used by its corporate systems, business processes, and products. These procedures and mechanisms are based on best market practices (such as frameworks such as NIST 800 Special Publication and ISO27001/2) and undergo periodic reviews to ensure their ability to spot, control, and respond to potential global cyber threats. Nonetheless, these results are not publicly disclosed.

Throughout 2022, Embraer did not have data leaks with confidential information.





(RT-AE-230a.2)

## DESCRIPTION OF APPROACH TO IDENTIFYING AND ADDRESSING DATA SECURITY RISKS IN COMPANY OPERATIONS AND PRODUCTS

Embraer establishes the guidelines regarding the methodology to be used for managing vulnerabilities by the Information Security area. Their use allows appropriate measures to be taken to eliminate their vulnerabilities before they can be exploited.

Vulnerability management is a continuous and transparent process carried out by the Information Security staff. Using digital scanning and auditing solutions for systems and applications, the process is responsible for providing, in the Configuration Management Data Base (CMDB) setup items, the vulnerabilities identified in the various layers that make up corporate systems. Scans are scheduled to be performed daily, with mechanisms to avoid Impacts on operations. To meet the company's monthly critical routines, the scan is performed in a less Intrusive manner,

avoiding overloads on critical systems. The results of scans should generate visibility into the company's situation, centralizing the results in CMDB. Weekly there is a meeting between representatives of all managers in the Information Technology (IT) area to report outcomes, review critical cases, and address their treatment. These outcomes are confidential and not publicly disclosed.

The Patch Management and Update Process, under the responsibility of the IT Infrastructure area, aims to coordinate and perform updates to corporate systems. The process should be organized by listing the vulnerabilities based on the Setup Items with the classification of the required updates ordered by criticality, based on the CVE (Common Vulnerabilities and Exposures) severity metric. For each degree of severity,

the IT Infrastructure area should prioritize the application of updates and fixes within a service deadline.

In events detected in vulnerability management, the IT Infrastructure staff has the prerogative to perform remediation actions without prior notice. These actions are connected to the purpose of maintaining the levels of operation of the business, ensuring the availability, integrity, and confidentiality of the company.

## CYBER GOVERNANCE AT EMBRAER

(GRI 3-3; 418-1)

Embraer's Cyber Governance comprises the following members of the Executive Committee:

1. CEO – Chief Executive Officer
2. CFO – Chief Financial Office
3. CISO - Chief Information Security Officer
4. Embraer's Vice President of Defense & Security
5. Legal & Compliance Vice President / Data Protection Officer (DPO)
6. Engineering Vice President
7. TEMPEST (CEO – Cybersecurity Specialist) – Embraer affiliate company

The Cyber Committee meets monthly, and CISO has the autonomy to call the committee when necessary. In addition, there are meetings of the Board of Directors and CARE to discuss the Cybersecurity Agenda with updates and decisions on Cyber Risk.

## SUBSTANTIATED COMPLAINTS CONCERNING BREACHES OF CUSTOMER PRIVACY AND LOSSES OF CUSTOMER DATA

(GRI - 418-1)

In 2022, Embraer had no complaints pertaining to breach of privacy by collaborators and customers, as well as no leaks, thefts, or losses of customer data.

The company has a dedicated structure that manages data privacy issues throughout the Embraer group, through the composition of a multidisciplinary team under the supervision of DPO – Data Protection Officer.





## 3.3.4. OPERATIONAL SAFETY AND PRODUCT QUALITY

### EMBRAER OPERATIONAL SAFETY PROGRAM

(GRI 3-3; RT-AE-250)

Designed to establish the governance of safety initiatives and indicator reviews of all company operations (design, manufacturing, maintenance, and air traffic control), the Operational Safety Program focuses on the continued increase of safety in products and operations and is chaired by the Senior Vice Presidents of Engineering, Operations, and Services & Support.

Safety actions relating to risk management are submitted monthly at the company's board meeting, where senior leadership participates. Additionally, the subject has the supervision of the company's CEO and the Board of Directors, in previously established visibility meetings.

### OPERATIONAL SAFETY GOVERNANCE



Embraer's commitment and the guidance of safety efforts to all collaborators are addressed in the company's Safety Policy. This policy is approved by Embraer's CEO and all Senior Vice Presidents and is available to all collaborators. The policy is stressed through training and events to foster the safety culture.

Since 2003, internal operational safety committees have been established to address risk management. These committees periodically review all safety reports received from collaborators, customers, suppliers, aeronautical authorities, and other audiences that relate to Embraer. For each of these reports, the associated risk is assessed according to the aeronautical industry standards and Embraer standards, validating the proposed efforts and managing them until completion.

In addition to the risk management described above, Embraer allocates experts to support authorities in all investigations of accidents and incidents

with its products. The goal is to improve product safety by ascertaining contributing factors and setting recommendations to prevent future events.

Safety is a pivotal part of the culture, which is furthered through several initiatives: internal trainings on product safety and safety culture, internal safety

conferences, participation in external safety events with customers, suppliers, authorities, and other aircraft manufacturers to exchange safety data and lessons learned. Furthermore, periodic internal safety culture surveys are conducted to assess the areas in which actions will be focused to improve safety awareness.

(RT-AE-250a.3)

In 2022, there were 11 new Airworthiness Guidelines (DAs) issued by ANAC (National Civil Aviation Agency) and 2 DA's (from 2011 and 2021) that were reviewed by ANAC, which may or may not be adopted by foreign authorities (FAA, EASA, CAAC-China, TCCA-Canada, CASA-Australia etc.). No Emergency Airworthiness Guidelines have been issued and none of these have been associated with ground events or plane crashes. All DA's are publicly available and the latest information can be found on the appropriate regulatory websites.



## PRODUCT QUALITY

Embraer manages its performance based on the SQDC indicators, acronym in English for “Safety, Quality, Deliveries, and Cost.” It is no coincidence that safety and quality are the first acronyms. The company believes that the focus on safety and quality is crucial to process excellence and thus ensures on-time deliveries, and the best cost for all stakeholders.

Quality has a dedicated board that guarantees a 360-degree view of all the company’s processes, from the production units to corporate, from the development of new products to the operation of customers, including the supplier base.

Embraer believes that a deciding factor for excellence in quality is culture. To continuously develop and emphasize the quality culture, several initiatives are carried out, such as biweekly meetings with the teams,

dedicated Quality Weeks in the production plants, visual communication campaigns underlining attitudes and principles appurtenant to safety and quality, and an online event of Operational Safety and Quality Week for the entire company.

The company closely listens to its customers to understand their needs, always seeking to exceed their expectations. The efforts it invests to continuously improve its processes and deliver quality to its customers led Embraer to be recognized by them in Executive Aviation, according to a customer satisfaction survey published by AIN and PRO PILOT magazines.

### AIN



### PRO PILOT



## EMBRAER QUALITY MANAGEMENT SYSTEM

Embraer Quality Management System complies with the requirements of several authorities, regulatory bodies, and certifying bodies, being audited periodically. In 2022 there were 40 external audits between the units in Brazil and abroad ensuring the maintenance of the company's certifications (AS9100, NATO AQAP 2110, COP ANAC, and PC FAA).

## EMBRAER EXCELLENCE SYSTEM

Released in 2007, the Embraer Business Excellence Program – P3E aims to be, further, and sustain cultural transformation by explaining the Lean philosophy, which means the search for excellence in its processes, services, and products. The program operates based on the Embraer's Excellence System, which consists of 4 elements: understanding of strategy, integrated management, excellence in processes, and personal protagonism. These, when put into practice, further the generation of value and the consolidation of the organizational culture with stakeholders.

More than being based on the 4 elements, Embraer's Excellence System disseminates the Lean phi-

losophy comprehensively throughout the organization – through the Excellence MAnnuals, which state Lean tenets, methods, and tools according to the processes to which they are directed. Among the main topics covered are: Lean principles, 5S (organization), TPM (reliability of assets and resources), Kaizen (continuous improvement), Visual Management, Value Stream Mapping (VSM), and Shop Floor Management (SFM).

With a focus on gaining productivity and eliminating waste, Embraer Excellence System is responsible for ensuring the implementation of improvements in a standardized manner.







## TESTS ON PRODUCTS

Embraer performs inspections, testing, and tests throughout the development and manufacture of the products in keeping with the company's procedures and regulatory requirements, in order to ensure safety, quality, maturity, performance, and reliability of the products throughout the life cycle of the aircraft in operation.

During the development phase of new products, Embraer conducts testing campaigns with a view to certifying aircraft design with the approval bodies. Also during the development phase, the stages of preparation and planning of quality for serial production are also carried out, encompassing the preparation of suppliers for quality delivery.

In the stage of serial production, Embraer Quality System, through its procedures, provides for the application of inspection processes and the execution of

tests on products in manufacture. Such inspections and tests cover the entire supply chain, inspections on receipt of materials, and inspections and tests at the various stages of the company's production process as a means to attest to the conformity of the products manufactured.

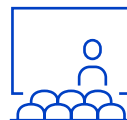
Lastly, as a final stage of aircraft manufacturing, Embraer performs tests with the finished product on the ground and in flight to ensure quality and compliance with requirements. In addition, there is the stage of acceptance of product by customers as part of the delivery process of each aircraft manufactured, with inspections, tests, and flights carried out with customer follow-up.

## PRODUCT QUALITY EDUCATION AND TRAINING PROGRAM

The readiness of people is one of the pillars of Embraer's Excellence Model. It is mandatory that 100% of collaborators who carry out activities in predetermined areas undergo training on operational qualification, quality, and safety. These trainings are carried out from the first day of work, in the onboarding of new collaborators, and continue throughout their entire careers. The Quality Management System ensures that people are qualified to perform their assignments and that activities are performed with excellence.

Embraer has training and education programs with trainings dedicated to several areas, including trainings aimed at product quality. The training program occurs in 4 different modalities, ensuring its robustness.

## EMBRAER TRAINING TYPES



### Class

Course provided by an instructor under an in-person or on-site/remote format.



### Asynchronous online

Material available for online reading, which can be done at any time.



### Synchronous online

Interactive training



### OJT

On-The-Job Training conducted in the workplace with a Mentor.

## PRODUCT QUALITY TRAINING DATA

# 8.625

COLLABORATORS TRAINED IN 2022

# 182.319

TRAINING HOURS IN 2022

## SUPPLIER QUALITY MANAGEMENT

Suppliers with the tier 1 and 2 definitions should have AS9100 certification, as well as meet the existing requirements in EQRS – Embraer Quality Requirements for Suppliers. The maintenance of AS9100 certification is checked through audits carried out by a third party company and monitored by Embraer. The service to EQRS is periodically re-evaluated by Embraer Quality.

Besides, suppliers that produce parts according to Embraer's specification (Build to Print) should have their processes qualified by Embraer's auditors, as per the requirements defined in EQRS. If the supplier uses special processes in its manufacturing, regardless of its level in the supply chain, it should also have the NADCAP (National Program for Accreditation of Aerospace and De-

fense Contracts) certification for each special existing process, maintaining this certification through the annual cycle of NADCAP audits.

The quality of all products and feedstock received by Embraer and its suppliers (tier 1, 2 and 3) is checked during the material receipt stage. This check occurs through the test reports submitted by the suppliers or manufacturers of the material in question, certifying that the tests necessary for proof of quality have been carried out and approved according to technical specifications. In addition, some products and feedstock are re-tested by Embraer in its laboratories, pursuant to specifications defined in the technical standards by Product Engineering.





## SUPPLIER TRAINING

As part of a robust regulatory system, Embraer annually emphasizes with its entire supply chain the quality requirements to be met, through EQRS, which are additional requirements to those existing in the AS9100 – Requirements for Quality Management of industries in the aerospace industry, which is a mandatory certification to become an Embraer supplier.

In addition to EQRS, Embraer also makes available the EPPAP MAnnual – Embraer Production Part Approval Process, containing 17 Quality tools to be applied during the development or modification of a product, in order to ensure preparation for Quality.

Both guidelines are carried out through the Read & Sign modality, and can also occur interactively, in person or online.

Another important effort is the dissemination of the Lean philosophy and the continuous

improvement of processes, through training to suppliers explaining the Kaizen methodology. These trainings occur in OJT – On-the-job Training mode, where Embraer guides how to spot and solve problems in practice, carrying out Kaizen projects together with suppliers. In 2022, 47 projects were carried out in concert with 34 domestic and international companies.

Complementing the initiatives, there are training courses in the form of Webinars. These trainings have a more specific focus, but with a greater scope of companies per class.

In 2022, 2 Webinars were held for the domestic supply chain, 1 on the Problem Solving methodology, and another on the Implementation of Poka-Yokes Solutions (fail-safe system).





## COUNTERFEIT PARTS PREVENTION PROCESS

(RT-AE-250a.2)

The prevention of the use of counterfeit or non-approved parts at Embraer goes through several processes within the company with established practices and procedures. The basis of prevention is the training and deployment of requirements within the company's processes when hiring a supplier, purchasing parts, designing a product, receiving and treating a non-compliant product. Training is provided to collaborators to raise awareness about the identification of suspicious parts, and treatment for existing non-conforming products is used when such materials are identified.

### »» CONTRACT

When hiring a supplier, the requirement on counterfeit parts is informed through the purchase order or contract. In the contract, this requirement is incorporated into the quality system certification standards required from suppliers (AS 9100, AS 9120). For suppliers that do not have the certifications, the requirement is included in the purchase order for all products purchased by Embraer, along with the technical and documentary specifications.

### »» PROCUREMENT

The procurement area should purchase products according to the design specifications and qualified suppliers according to Embraer's product structure. The supplier qualification process includes procedures that check, in addition to meeting the technical requirements, compliance with the requirements of the quality management system.

Periodic assessment of suppliers' performance is carried out and risk management is practiced, spotting critical points that require a more thorough assessment (audit) or action plans focused on certain problems. Distributors are also approved according to specific procedures and can only deliver products from manufacturers approved and described in the purchase order.

## >> ENGINEERING

In the aircraft certification process, components should also undergo a specific certification campaign. Equipment is subject to tests and should have a certificate of conformity, as well as the configuration of the laboratory and the procedure used in the test. All certification artifacts are approved by the certification authority or its representatives. These artifacts make up the technical data required to obtain the aircraft type certificate. Each aircraft is produced by a production organization certified according to the type certificate. A new or modified component can only be installed on a certified aircraft if it meets all the steps referred to above by following the design modification procedure. As a member of the Material Review Board (MRB), product engineering is also responsible for tackling equipment nonconformities, ensuring that they meet applicable requirements. Engineering may still issue inventory re-inspection requests for updating, return, testing or visual inspections. Requesting quality to include equipment limitation notes that restrict use in flight, delivery to customer or otherwise, is another option.

## >> RECEIPT

To receive the products, Embraer establishes specific inspection standards for each type of material. These standards include physical and documentary characteristics (certificate of conformity, test report) that should accompany the product, ensuring traceability to the source of supply. Upon receipt, the identification of the material, packaging conditions, quantities, documentation delivered, supplier approved in the system is checked, that is, the information is checked to ensure that the product delivered meets the specifications of the purchase order. In some situations, defined in the receipt standards, the products or samples are sent to laboratories for tests that prove compliance with the specified technical requirements. When excess parts are received, parts are scrapped if the supplier does not update the documentation to ensure traceability.

## >> TREATMENT OF NONCONFORMITIES (PRODUCT AND PROCESS)

When identifying suspicious or counterfeit parts, the material is segregated in quarantine following the same process for the treatment of noncompliant products. In the case of identification of nonconformities in the processes pertaining to the handling of counterfeit parts, corrective actions are carried out to contain the recurrence of the problem and ensure definitive solution. Parts for scrap disposal have their disposal strictly controlled to avoid misuse in the production process.

## >> TRAINING

Collaborator training is offered by the EmPower system on the impact of counterfeit parts on the aeronautics industry and prevention. The practices carried out by Embraer are also implemented in specific procedures in the areas.



# **Content** SUMMARY

# 4.1 GRI CONTENT INDEX

Statement of use	EMBRAER – Empresa Brasileira de Aeronáutica S.A has reported the information cited in this GRI content index for the period from 1 January 2022 to 31 December 2022 with reference to the GRI Standards
GRI 1 used	GRI 1: Foundation 2021

## General Disclosures

GRI 2

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)
	2-1 Organizational details	Page 07	
	2-2 Entities included in the organization's sustainability reporting	Page 70	
	2-3 Reporting period, frequency and contact point	Page 70	
	2-4 Restatements of information	Page 70	
	2-5 External assurance	Page 70	
	2-6 Activities, value chain and other business relationships	-	<a href="#">Financial Statements</a>
	2-7 Collaborators	Page 110	
GRI 2: General Disclosures 2021	2-8 Workers who are not collaborators	Page 110	
	2-9 Governance structure and composition	Page 127	
	2-10 Nomination and selection of the highest governance body	-	<a href="#">Nomination and Training Policy</a>
	2-11 Chair of the highest governance body	Page 129	
	2-12 Role of the highest governance body in overseeing the management of impacts	Page 130	
	2-13 Delegation of responsibility for managing impacts	Page 131	
	2-14 Role of the highest governance body in sustainability reporting	Page 131	
	2-15 Conflicts of interest	-	

## General Disclosures

GRI 2

DISCLOSURE	Sustainability Report	Additional Reference(s)
2-16 Communication of critical concerns	Page 131	
2-17 Collective knowledge of the highest governance body	-	<a href="#">Organizational Structure, Nomination and Training Policy</a>
2-18 Evaluation of the performance of the highest governance body	-	<a href="#">Internal Rules of the Board</a>
2-19 Remuneration policies	Page 116	<a href="#">Internal Rules of the Board</a>
2-20 Process to determine remuneration	Page 117	<a href="#">Internal Rules of the Board</a>
2-21 Annual total compensation ratio	Page 117	
2-22 Statement on sustainable development strategy	-	<a href="#">Sustainability</a>
2-23 Policy commitments	-	
2-24 Embedding policy commitments	-	
2-25 Processes to remediate negative impacts	-	
2-26 Mechanisms for seeking advice and raising concerns	Page 132	
2-27 Compliance with laws and regulations	Page 136	
2-28 Membership associations	-	
2-29 Approach to stakeholder engagement	-	<a href="#">Corporate Procedure</a>
2-30 Collective bargaining agreements	Page 96	



## Material Topics

GRI 3

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Page 71		
	3-2 List of material topics	Page 71		

## Economic Performance

GRI 201

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Page 12 to 14	<a href="#">Results Center</a>	8,9
	201-2 Financial implications and other risks and opportunities due to climate change	-	CDP - C2. Risks and Opportunities C3. Business Strategy	13
	201-3 Defined benefit plan obligations and other retirement plans	-	Report 20-F	8, 9
	201-4 Financial assistance received from government	-	Report 20-F	

## Procurement Practices

GRI 204

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Page 123		8

## Anti-corruption

GRI 205

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Page 132		16
	205-2 Communication and training about anti-corruption policies and procedures	Page 133		16
	205-3 Confirmed incidents of corruption and actions taken	Page 134		16

## Energy

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 16 to 18		
GRI 302 - Energy 2016	302-1 Energy consumption within the organization	Page 75		7, 8, 12, 13
	302-2 Energy consumption outside of the organization	Page 77		7, 8, 12, 13

## Water and Effluents

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 82		
GRI 303: Water and Effluents 2018	303-3 Water withdrawal	Page 83		6, 8, 12
	303-4 Water discharge	Page 84		6

## Emissions

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 78		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Page 78		3, 12, 13, 14, 15
	305-2 Energy indirect (Scope 2) GHG emissions	Page 79		3, 12, 13, 14, 15
	305-3 Other indirect (Scope 3) GHG emissions	Page 79		3, 12, 13, 14, 15
	305-4 GHG emissions intensity	Page 79 to 80		13, 14, 15
	305-5 Reduction of GHG emissions			
	305-6 Emissions of ozone-depleting substances (ODS)	Page 81		3, 12
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Page 81		3, 12, 14, 15

## Waste

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 86		
	306-3 Waste generated	Page 86, 87 and 88		3, 6, 12, 14, 15
GRI 306: Waste 2020	306-4 Waste diverted from disposal	Page 86, 87 and 88		3, 11, 12
	306-5 Waste directed to disposal	Page 86, 87 and 88		3, 6, 11, 12, 14, 15

## Supplier Environmental Assessment

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 118		
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Page 120		
	308-2 Negative environmental impacts in the supply chain and actions taken	Page 120		

## Employment

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics			
	401-1 New collaborator hires and collaborator turnover	Page 107 and 108		5, 8, 10
GRI 401: Employment 2016	401-2 Benefits provided to full-time collaborators that are not provided to temporary or part-time collaborators	Page 96 and 111		5, 8
	401-3 Parental leave	Page 109		5, 8

## Occupational Health and Safety

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 90		
	403-1 Occupational health and safety management system	Page 90 to 92		8
GRI 403: Occupational Health and Safety 2018	403-2 Hazard identification, risk assessment, and incident investigation	Page 90 to 92		3, 8
	403-3 Occupational health services	-		8
	403-5 Worker training on occupational health and safety	Page 93		3
	403-6 Promotion of worker health	Page 92		8
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Page 90 to 92		
	403-8 Workers covered by an occupational health and safety management system	Page 91		3, 8, 16
	403-9 Work-related injuries			

## Training and Education

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	-		
	404-1 Average hours of training per year per collaborator	Pages 97 to 98		4, 5, 8, 10
GRI 404: Training and Education 2016	404-2 Programs for upgrading collaborator skills and transition assistance programs	Page 99		8
	404-3 Percentage of collaborators receiving regular performance and career development reviews	Page 98		5, 8, 10

## Diversity and Equal Opportunity

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and collaborators	Pages 112 to 114		5, 8
	405-2 Ratio of basic salary and remuneration of women to men	Page 115		5, 8, 10

## Non-discrimination

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 132	<a href="#">Compliance Program</a>	
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Page 136		5, 8

## Freedom of Association and Collective Bargaining

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Page 121		8

## Local Communities

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Page 124		5, 8, 10

## Supplier Social Assessment

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Page 118		
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Page 120		3, 6, 11, 12
	414-2 Negative social impacts in the supply chain and actions taken	Page 121		3, 6, 11, 12

## Customer Privacy

GRI STANDARD	DISCLOSURE	Sustainability Report	Additional Reference(s)	SDG
GRI 3: Material Topics 2021	3-3 Management of material topics	Pages 137 to 139		
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Page 139		16



## 4.2. SASB CONTENT INDEX

### Energy Management

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Total energy consumed, percentage grid electricity, percentage renewable	RT-AE-130a.1	Page 77	

### Hazardous Waste Management

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Amount of hazardous waste generated, percentage of hazardous waste recycled	RT-AE-150a.1	Pages 86 to 87	
Number and aggregate quantity of reportable spills, quantity recovered from reportable spills	RT-AE-150a.2	Page 88	

### Data Security

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Number of data breaches, percentage involving confidential information	RT-AE-230a.1	Page 137	
Description of approach to identifying and addressing data security risks in company operations and products	RT-AE-230a.2	Page 138	

### Fuel Economy & Emissions in Use-phase

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Revenue from alternative energy-related products	RT-AE-410a.1		In 2022, around 13.6% of the company's net revenue came from more sustainable products.
Description of approach and discussion of strategy to address fuel economy and greenhouse gas (GHG) emissions of products	RT-AE-410a.2	-	

## Product Safety

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Number of recalls issued, total units recalled	RT-AE-250a.1	-	
Number of counterfeit parts detected, percentage avoided	RT-AE-250a.2	Page 148	
Number of Airworthiness Directives received, total units affected	RT-AE-250a.3	Page 147	
Total amount of monetary losses as a result of legal proceedings associated with product safety	RT-AE-250a.4	In 2022, the company did not have any monetary losses related to product safety.	

## Materials Sourcing

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Description of the management of risks associated with the use of critical materials	RT-AE-440a.1	Page 122	

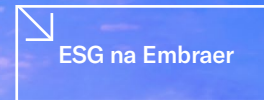
## Business Ethics

Accounting metrics	Code	Sustainability Report Section(s)	Additional Reference(s)/ Link(s)
Total amount of monetary losses as a result of legal proceedings associated with incidents of corruption, bribery, and/or illicit international trade	RT-AE-510a.1	Page 135	
Revenue from countries ranked in the "E" or "F" Band of Transparency International's Government Defence Anti-Corruption Index	RT-AE-510a.2	Page 136	
Discussion of processes to manage business ethics risks throughout the value chain	RT-AE-510a.3	Page 136	

## 4.3. TCFD CONTENT INDEX

Disclosure	Tcfd recommended disclosure	Sustainability Report Section(s)	Additional Reference(s)/Link(s)
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	Pages 126 to 131	C1.1a, C1.1b
	b) Describe management's role in assessing and managing climate-related risks and opportunities.		C1.2, C1.2a
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	-	C2.3a, C2.4a
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	-	C2.3a, C2.4a, C3.1, C3.3, C3.4
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	-	C3.2, C3.2a
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks.	-	C2.1, C2.1a, C2.1b, C2.2, C2.2a
	b) Describe the organization's processes for managing climate-related risks.	-	C2.1, C2.2
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	-	C2.1, C2.1b, C2.2
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Page 78 to 81 Page 16	C4.2, C9.1
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.		C6.1, C6.2, C6.3, C6.5, C6.10, C7.1, C7.1a, C7.2, C7.3, C7.3a, C7.5, C7.6, C7.6a
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.		C4.1, C4.1a, C4.1b, C4.2a

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