



TURKISH AIRLINES

A STAR ALLIANCE MEMBER



2021 SUSTAINABILITY REPORT

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ABOUT THE REPORT

This report is the eighth sustainability report published by Turkish Airlines Inc. ("Turkish Airlines" or "the Incorporation") as to inform its stakeholders about its sustainability policies and strategies, the social, environmental and economic impacts of its activities, and its projections for the future.

The main content of the Turkish Airlines Sustainability Report is the issues determined as a result of the materiality studies carried out in accordance with international standards, the issues expected to be declared in line with stakeholder requests and compliance requirements.

This report has been prepared in accordance with the GRI Standards: Core option. The content of the 2021 Turkish Airlines Sustainability Report consists of data on the Incorporation's activities between 01.01.2021 and 31.12.2021. The fully owned subsidiaries of the Incorporation which are included in the consolidated financial statements of Turkish Airlines, are not included in the scope of this report unless otherwise indicated.

The greenhouse gas statements for 2021 disclosed in the report have been verified by an independent organization according to the TS EN ISO 14064-3: 2019 Standard. **The Verification Statement** can be found on page 107. Selected indicators in the report have been externally audited within the scope of limited assurance in accordance with ISAE 3000 (revised) standard by PwC Turkey. **The Independent Assurance Statement**, which includes the list and scope of assured indicators, can be found on pages 110 and 111 of the report.

You can access the 2021 Turkish Airlines Sustainability Report and previous reports at <https://investor.turkishairlines.com/en/corporate-governance/sustainability>.





Message from the Chairman of the Board of Directors



GRI-102-14

In 2021, Turkish Airlines operated flights to 25 of the 46 countries included in the United Nations' least developed countries category and carried approximately 1 million 110 thousand passengers. Only Turkish Airlines operates flights to 142 of our current international routes.

Dear Stakeholders,

Thanks to the vaccination efforts in Turkey and around the world, we experienced a decrease in the impacts of Covid-19 pandemic in 2021. During this period, as the national flag carrier airline of Türkiye, we performed above the industry average and became among the leaders of the recovery in the aviation industry.

We managed to increase our revenues with growing cargo demand and a lively tourism season, while keeping the impact of financial negativities at the lowest level with our rapid decision-making competence and effective capacity management. With an operating profit of 1.4 billion USD and a profit margin of 13.2%, our Incorporation achieved a profitability above the industry average in 2021. Available Seat Km (ASK) increased to 127.8 billion km, the number of landings increased to 357,189 while cargo and mail carried reached 1,879,552 tons.

Our investments on fleet modernization made a significant impact on our success. With the 3 A350-900 aircraft received in 2021, the total number of

A350-900 aircraft in our fleet increased to 5. With 15 B787-9 Dreamliner aircrafts in our fleet, the number of new generation wide-body aircraft in our fleet reached 20 by the end of 2021. Through these investments, we have strengthened the status of Turkish Airlines as one of the youngest and most modern fleets in the world, by achieving a fleet of 370 aircraft, 246 of which are narrow-body, 104 of which are wide-body and 20 of which are cargo aircraft, with an average age of 8.5 years.

Thanks to the flexibility provided by our fleet structure, we increased the number of destinations to 333 in 2021. As the airline company that flies to the highest number of destinations in the world, we give an incomparable support to international development. In 2021, Turkish Airlines operated flights to 25 of the 46 countries included in the United Nations' least developed countries category and carried approximately 1 million 110 thousand passengers. Only Turkish Airlines operates flights to 142 of our current international routes. The connectivity we provide, has a significant importance for these countries to develop their economic and social relations with the rest of the world.

Pandemic has been a process that once again revealed the significance of our approach. Contributing to the access to vital resources, primarily medical supplies and vaccines, for several countries through our cold chain cargo capacity meant a great deal for us.

The gains in environmental impact management such as fuel efficiency and noise reduction provided by our new generation aircraft are among the most important returns of our fleet investments. According to the manufacturer's data, we achieved fuel savings of 15% per seat in the new generation narrow-body aircraft and 20-25% in the wide-body aircraft and a corresponding reduction in flight-related greenhouse gas emissions. With our comprehensive fuel efficiency practices including fleet modernization studies, in 2021, we saved 37,082 tons of aviation fuel and prevented 116,808 tons of carbon emissions.

One of the most prominent indicators of our Incorporation's determined stance on combating climate change is our efforts to increase the use of sustainable aviation fuels. In this context, we will first start using biofuels in our flights to



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various European destinations in 2022. We do not limit our efforts to increase the use of sustainable aviation fuel to the use of biofuels, and we continue to support R&D projects. With the Microalgae Based Sustainable Bio-Jet Fuel R&D Project which we carried out together with Boğaziçi University and supported by TÜBİTAK, we aim to become one of the few global companies that can use sustainable aviation fuel which does not compete with agricultural activities, without polluting water, soil and other resources.

As an indication that we aim more than complying with the legal requirements while carrying out our activities, we have strengthened the ISO 14001 Environmental Management System that we have been implementing since 2013, by participating to the IATA Environmental Assessment (IEnvA) Management System Program, which was particularly designed for airline companies by the International Air Transport Association. As a result of the audit carried out by an independent third-party organization authorized by IATA, Turkish Airlines became the first airline company which is directly entitled to receive the IEnvA Program Stage 2 certification, the highest certification level of the program.

We continue to fulfill our responsibility for the correct management of greenhouse gas emissions with several studies such as fleet modernization, technology investments, increasing resource efficiency, fuel efficiency, and development of the environmental management system. In 2022, we will increase our efforts by launching the CO2mission program, which allows our passengers to offset their flight-related carbon emissions. Through the digital platform of CO2mission, which is a voluntary carbon offsetting program, our guests will be able to offset the carbon emissions occurred due to their flights with Turkish Airlines or other airlines, by supporting sustainable development projects conducted in line with international standards.

2021 has been a year in which our sustainability management efforts were evaluated and appreciated by various organizations. During the period, besides maintaining our position in the Borsa Istanbul Sustainability Index, our efforts were rewarded. Our environmentally friendly packaging practices were rewarded with the Best Onboard Sustainability Award by Onboard Hospitality and with the Sustainable Packaging Initiative Gold Award by the Travel Plus Awards. The

Forrest Stewardship Council (FSC) certified wooden toy sets we offer to child passengers were rewarded by Travel Plus with the Child Health Initiative Gold Award. The Sustainability Report, which we have published last year, has received the Gold Award in the Sustainability and Corporate Social Responsibility Report categories, following the evaluation made by the League of American Communications Professionals (LACP).

We increase our sustainability performance every year with our investments, projects and practices, and we work hard to increase our positive impact on the world and humanity. In this context, we would like to underline the actual support we give to the UN Sustainable Development Goals. In the upcoming period, we will reinforce our commitment to sustainability by becoming one of the participants of the UN Global Compact, the world's largest corporate sustainability initiative.

We have completed another period in which we increased our success with our employees, who are our most valuable asset, the strength we derive from our 88-year history, the unwavering support of our nation, and

the responsibility of being the national flag carrier airline of the Republic of Türkiye. We would like to express our gratitude to our President, Mr. Recep Tayyip Erdoğan, who did not spare us his support in passing through this difficult period successfully, to our government, especially to our Ministries of Health, Transport, Tourism, Interior, Foreign Affairs and Trade, to our affiliates, partners, and stakeholders.

With the awareness that sustainable development can only be achieved together, we will continue to develop greater cooperation and establish a transparent and constructive dialogue with all our stakeholders. We see that a new era will begin in aviation with the year 2022, which we hope that the negative impacts of the pandemic will disappear. As the Turkish Airlines family, we will continue to work with the aim of reaching the peak of the aviation industry in this new period, and we will proudly share our achievements with our entire nation.

Prof. Ahmet BOLAT
Chairman of the Board of Directors and
the Executive Committee

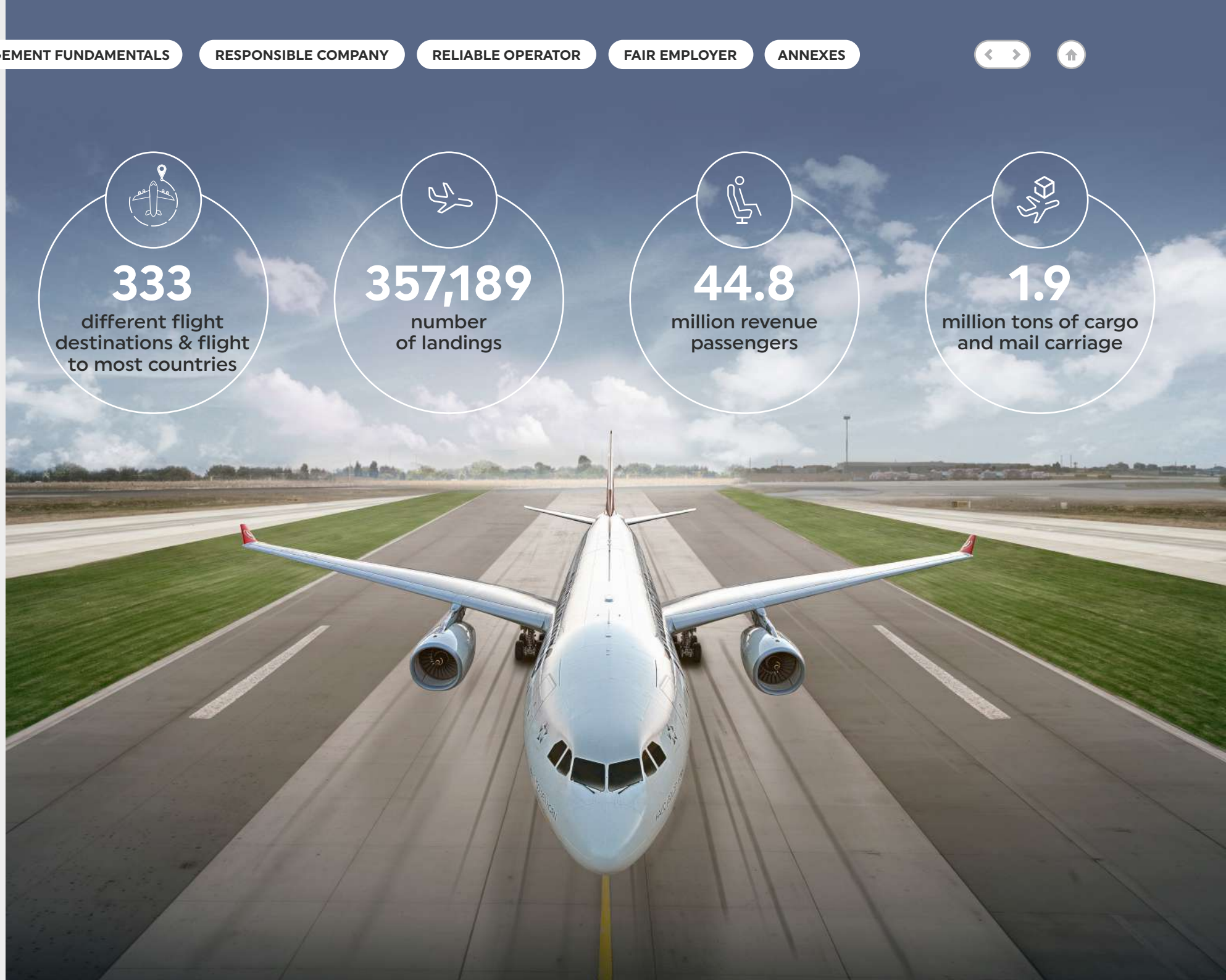
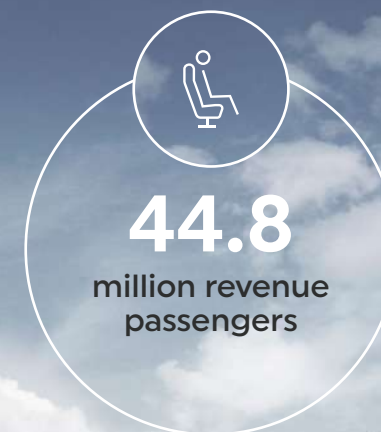
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Turkish Airlines at a Glance

Established in 1933 with the objective of carrying out domestic and international passenger and cargo air transportation activities, Turkish Airlines has proudly fulfilled its responsibility of being the flag carrier airline of the Republic of Türkiye for 88 years.

Maintaining its rapid growth trend since its foundation, Turkish Airlines is among the largest airline companies in the world, with 19 subsidiaries and affiliates, a paid-in capital of 1.38 billion TL, and more than 60,000 employees, including its subsidiaries.

Among the airlines carrying out passenger transportation, Turkish Airlines is the ninth largest airline in the world in terms of fleet size with 370 aircraft in its fleet as of 2021 and the airline flying to the most countries and international destinations in the world with 333 different domestic and international destinations. This year, Turkish Airlines transported 44.8 million passengers, 1.9 million tons of cargo and mail with 357,189 landings.



Vision

A continued growth trend over industry average,
Zero major accidents/crashes,
Most distinguished service levels worldwide,
Unit costs equating with low-cost carriers,
Sales and distribution costs below industry averages,
Loyal customers who make their own reservation,
ticketing and boarding procedures,
Personnel constantly developing their qualifications with the
awareness of the close relationship between the benefits for
the company and the added value that they contribute,
An entrepreneurship that creates business opportunities for
fellow members in the Star Alliance and takes advantage of
the business potential provided by them,
a staff well adapted to modern governance principles by observing
the best interests of both shareholders and stakeholders.

Mission

To become the leading European air carrier
of choice with a global network of coverage
thanks to its strict compliance with flight
safety, reliability, product line, service quality
and competitiveness, whilst maintaining its
identity as the flag carrier of the Republic of
Türkiye in the civil air transportation industry.

Our Core Values

Integrity and Fair Treatment
Customer Satisfaction
Respect for the Individual
Innovation
Teamwork
Leadership
Productivity
Security
"Open Door" Policy

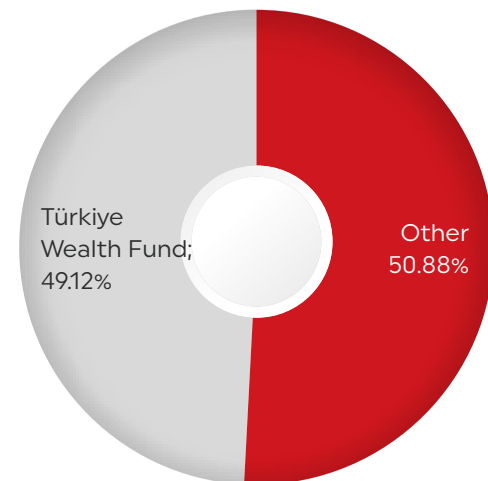


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OWNERSHIP STRUCTURE

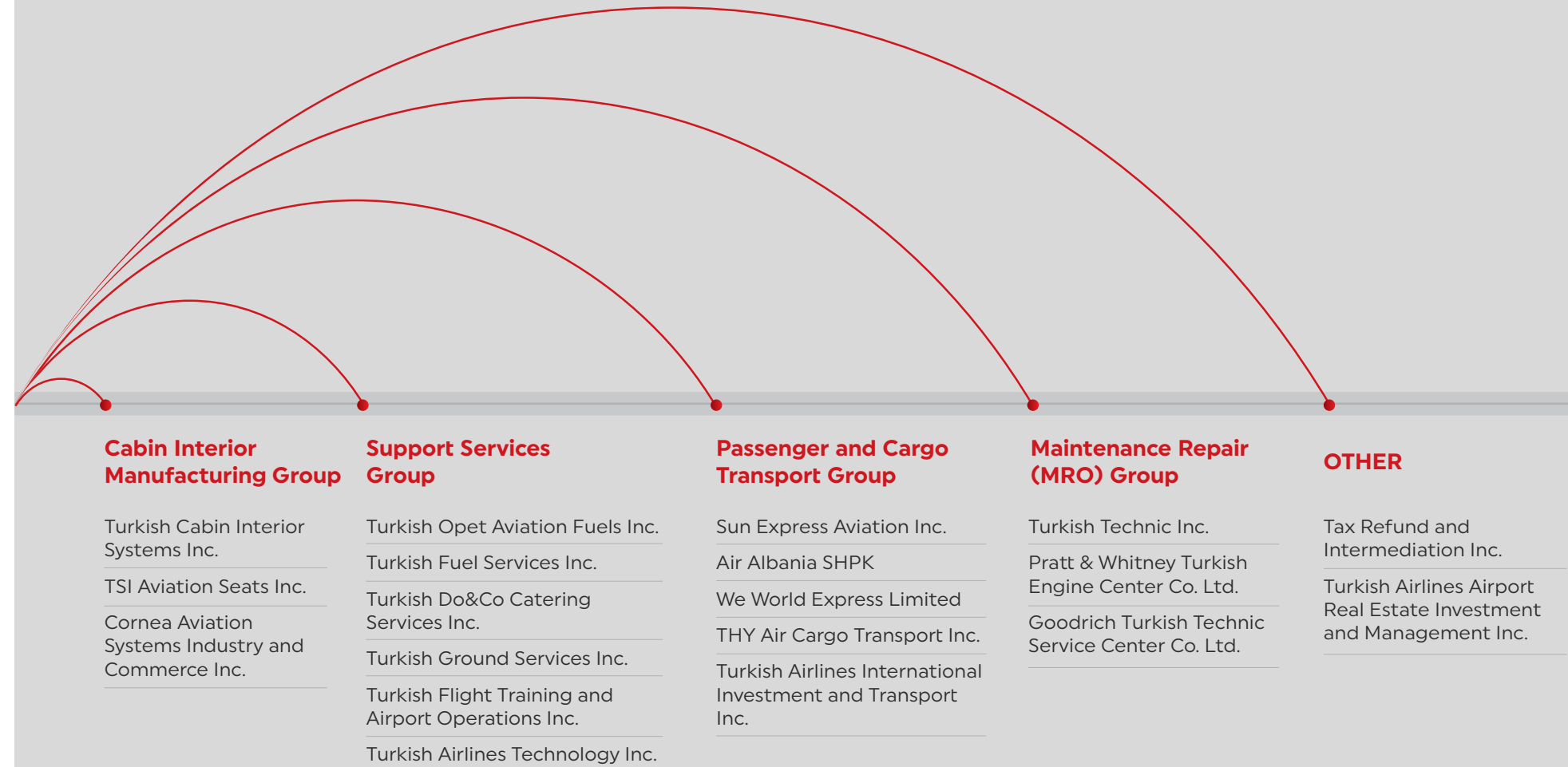
The issued share capital of Turkish Airlines amounting to 1,380,000,000 (One billion three hundred and eighty million) Turkish Lira has been divided into 138,000,000,000 (One Hundred and Thirty-Eight Billion) shares, each with a nominal value of 1 (One) Kurus, and the paid-in share capital has been fully paid. 49.12% of the Incorporation shares go to Türkiye Wealth Fund, 1 C group share belongs to the Privatization Administration of the Turkish Ministry of Treasury and Finance; the remaining 50.88% of the shares were offered to the public and are traded on Borsa Istanbul. You can find information on Turkish Airlines' shareholding structure and the use of shareholder voting rights in the [Investor Relations](#) section of the corporate website.

TURKISH AIRLINES OWNERSHIP STRUCTURE



SUBSIDIARIES AND AFFILIATES

Turkish Airlines has made numerous investments over the years in order to expand its field of service, diversify its activities and perform its operations more efficiently. In this context, our Incorporation has a total of 19 subsidiaries and affiliates operating in various fields, including 7 subsidiaries with 100% ownership and 12 joint ventures.



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Brands

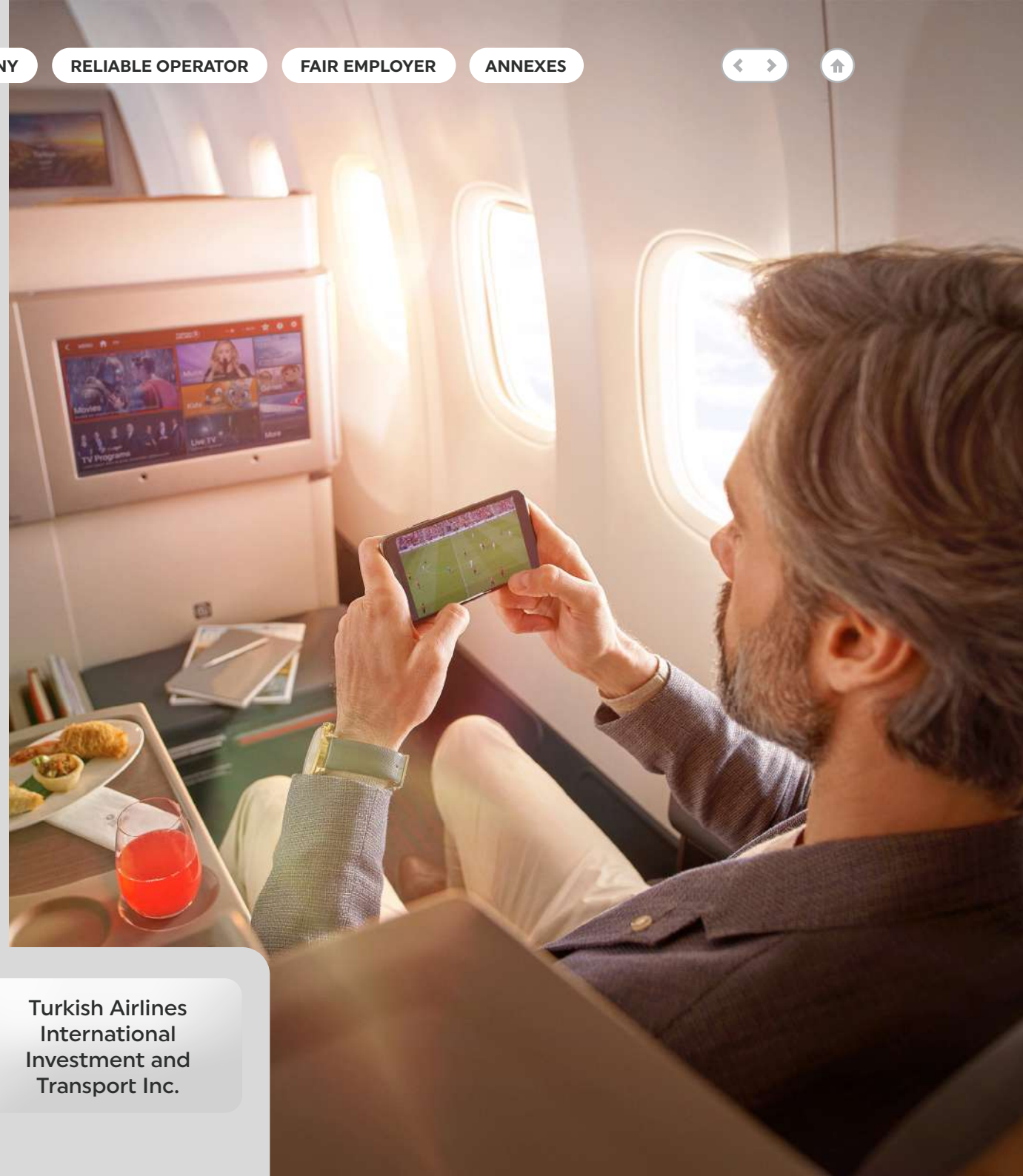


GOODRICH TURKISH TECHNIC



Turkish Airlines Airport
Real Estate Investment
and Management Inc.

Turkish Airlines
International
Investment and
Transport Inc.



Turkish Airlines 2021 Awards



5 Star Global Airline
(APEX)



World Class Award
(APEX)



Diamond APEX Health
Safety Award – Health
Safety Diamond Status
(APEX+SimpliFlying)



Design Airline of the
Year, Europe 2021
(The Design Air)



Passenger Hygiene Kit Gold
Award (Travel Plus Awards)



Sustainable Packaging
Initiative Gold Award
(Travel Plus Awards)



Children's Wellness
Initiative Gold Award
(Travel Plus Awards)



Passenger Wellness
Tech Gold Award
(Travel Plus Awards)

TRAVEL+ LEISURE

The World's Best Awards /
Top 10 International Airline
(Travel + Leisure)



2021 Reader's Choice Award
- Top 3 Global Airlines
(Condé Nast Traveler)



Customer Experience
Awards - Airline Industry
Winner (Fast Company)



The Best Air Cargo Brand of
the Year (Istanbul Economy
Summit)



Air Cargo Excellence Award
(WOF Expo)



LACP Spotlight Awards 2020
- Gold Award in Sustainability
Report (American League
of Communication
Professionals)



LACP Spotlight Awards 2020
- Gold Award in Corporate
Social Responsibility
Report (American League
of Communication
Professionals)



Best of Onboard
Sustainability – Eco-friendly
Packaging (Onboard
Hospitality)

Financial and Operational Performance

With the reduction of the impacts of the COVID-19 pandemic, which deeply affected the aviation industry as every other sector in 2020, 2021 experienced a period of revival of aviation activities. During the period, Turkish Airlines performed above the sector average and reached a total of 44.8 million passengers, showing an increase of 45.7% in domestic flights and 74.5% in international flights compared to the previous year. Cargo and mail transportation, on the other hand, increased by 26.4% to 1.9 million tons.

With this increase, passenger revenues increased by 69% to 6.4 billion USD in 2021, while cargo revenues increased by 48% to 4.0 billion USD. Total revenue, on

the other hand, increased by 59% compared to the previous year and reached 10.7 billion USD.

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10.7

billion USD.



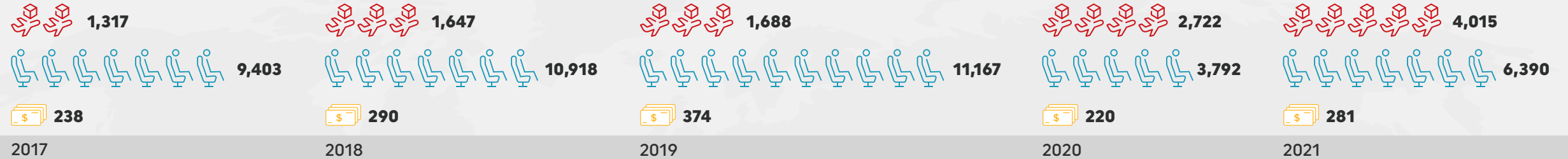
You can find more information about our financial and operational performance in the **THY 2021 Annual Report**.



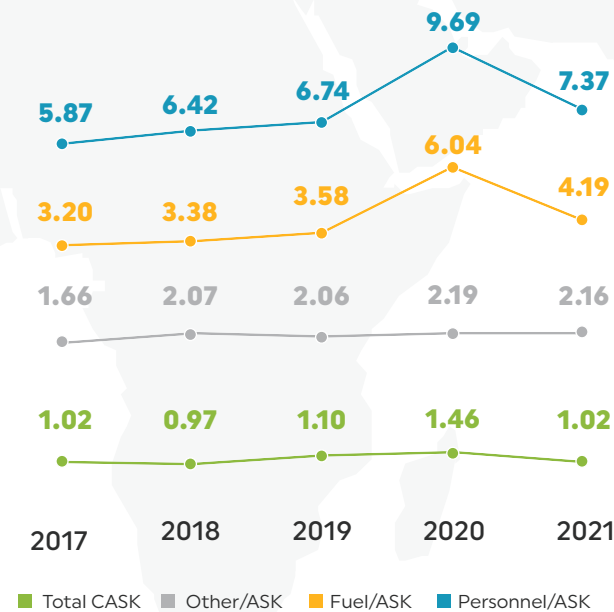
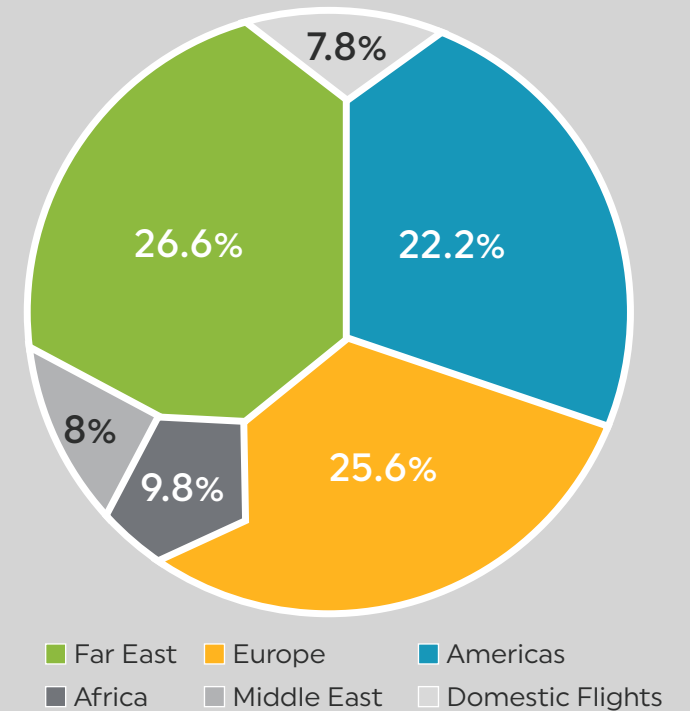
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REVENUE BREAKDOWN BY CATEGORY (MILLION USD)

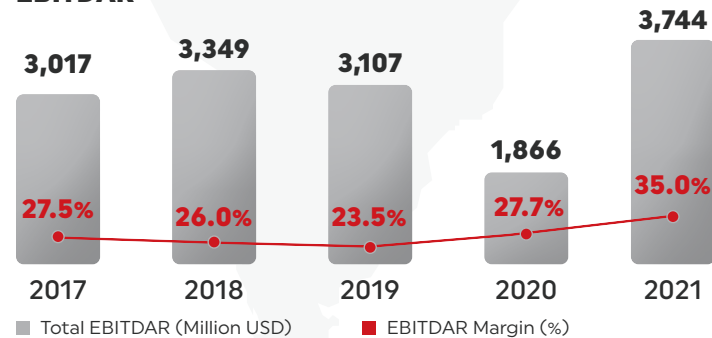
Other Revenues
 Cargo Revenues
 Passenger Revenues

Financial Indicators
(million USD)

	2018	2019	2020	2021
Operating profit	1,191	876	-255	1,414
EBITDA	2,463	2,589	1,481	3,416
Net debt	7,687	10,107	14,120	11,596
Total Assets	20,732	24,724	25,530	26,537
Total Investments	2,940	4,315	4,903	4,193
Return on Equity (ROE) (%)	13%	11%	-16%	14%

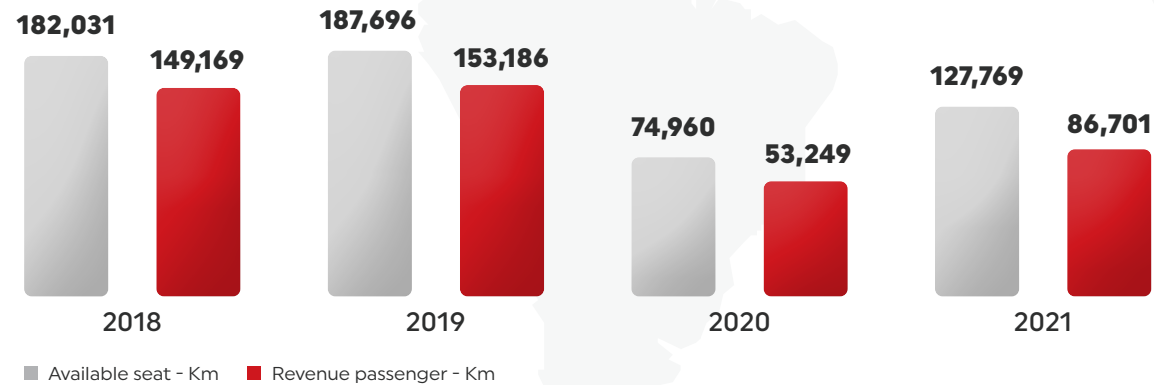
UNIT COSTS
(USD CENT "USC")REVENUE BREAKDOWN BY
GEOGRAPHY (%)

EBITDAR



Total Traffic Figures	2018	2019	2020	2021
Revenue Passenger (thousand)	75,168	74,276	27,950	44,788
Available Seat (million Km)	182,031	187,696	74,960	127,769
Revenue Passenger (million Km)	149,169	153,186	53,249	86,701
Passenger Load Factor (%)	81.9	81.6	71.0	67.9
Flight Destinations	310	321	324	333
Number of Landings	511,064	507,314	240,339	357,189
Distance Flown Km (thousand)	866,630	926,177	472,205	703,663
Cargo + Mail (tons)	1,412,423	1,543,028	1,487,233	1,879,552
Excess Luggage (tons)	7,717	11,725	7,281	20,695

ASK AND RPK GROWTH (MILLION KM)



FLIGHT DESTINATION DISTRIBUTION BY GEOGRAPHY (%)

Domestic
52 Destinations
16%

Central And South America
8 Destinations
2%

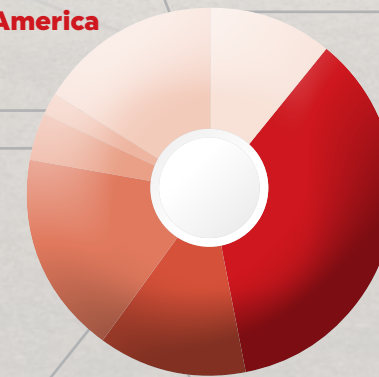
North America
14 Destinations
4%

Africa
61 Destinations
18%

Middle East
36 Destinations
11%

Europe
118 Destinations
36%

Far East
44 Destinations
13%



Our Contribution to the Economy

Today, aviation is among the branches of activity that have strategic importance in terms of the economic development of a country. **In this context, Turkish Airlines makes direct and indirect economic contributions to Türkiye's economic development in numerous areas.**

DIRECT ECONOMIC IMPACT

Turkish Airlines carries out its activities in coordination with a wide range of stakeholders. As a result of these activities, direct economic value is created for various stakeholder groups.

Direct Economic Impact Distribution (million USD)	2018	2019	2020	2021
Direct economic value generated - Net Sales Revenue	12,855	13,229	6,734	10,686
Direct economic value distributed	11,686	12,644	7,264	9,411
Activity costs	9,827	10,477	6,103	8,051
Wages and benefits paid to employees	1,772	2,067	1,097	1,298
Dividends paid	0	0	0	0
State taxes and similar payments	41	52	41	37
Donations, sponsorships and corporate responsibility expenditures	46	48	23	25



CONTRIBUTION TO GDP OF TÜRKİYE

The aviation industry, which has grown rapidly after the legal regulations made in Türkiye since 2003, continues to develop as a result of increasing infrastructure and fleet investments, number of connections and air ticket price adjustments. Since the beginning of the Covid-19 pandemic, public institutions and organizations have provided the necessary support to the aviation industry, making Türkiye one of

the fastest recovering countries in the aviation industry after the pandemic.

In 2021, Turkish Airlines' revenues increased in line with the rise in passenger and cargo transportation. In this context, Turkish Airlines generated a total revenue of 10.7 billion USD during this period.

The value of Turkish Airlines' investments between 2009 and 2021 was 19.8 billion USD, and in 2021, 21 new aircraft with a total value of 1,377 million USD were added to our fleet. The realized investment expenditures amounted to 4,193 million USD.

	2018	2019	2020	2021
Investments (million USD)	2,940	4,315	4,903	4,193
Fleet investments	1,291	2,402	2,926	2,061
Financial Lease Refunds	906	974	1,541	1,786
Other	743	939	436	346

CONTRIBUTION TO PUBLIC FINANCE

Aviation industry provides a substantial contribution to public finance directly through tax payments or indirectly

through fringe benefits, airport fees, etc. The total amount of the indirect taxes and charges, generated in 2021 by Turkish Airlines with an important contribution to public finance, amounts to 863 million USD.

Taxes Paid	2018	2019	2020	2021
Türkiye (TL)	773,139,271	1,441,302,581	898,893,051	1,472,755,988
Other States (TL)	59,865,126	66,849,176	59,912,800	54,248,048
Airports (USD)	1,108,276,906	1,120,050,112	425,535,737	740,139,335





Tax Processes

With its “full tax resident” status, Turkish Airlines is subject to corporate tax, value-added tax, stamp duty, income tax, Recovery Contribution Share, Tourism Share and various other taxes due to the income it has earned both in Türkiye and abroad, and its activities.

In this context, our Incorporation fulfills all its tax responsibilities in line with the legislation and acts ethically in tax payments. An expert unit was established in order to carry out the tax processes correctly and efficiently, to compare the tax-related information needs of other units, to follow the relevant legislation, to determine tax risks and opportunities, and to make tax calculations and planning within the company. The tax unit carries out its work in accordance with the principles specified in the Tax Procedure document for the company. In this process, tax-based accounting records are examined and reported by the independent audit firm. Current legislation on tax calculations is meticulously followed, and within this scope, tax consultants who are experts in their fields are called in, and written opinions are requested from the authorities when deemed necessary.

In order to prevent disruptions in tax calculation and payments, indicators that may affect taxable income such as fuel price changes, foreign exchange differences, changes in indirect/direct tax applications, possible effects of implementation provisions that are not clear in the tax legislation of various countries are considered as risk and opportunity areas.

Turkish Airlines is subject to corporate and similar taxes in many countries abroad and works in collaboration with expert consulting firms with sector experience in order to ensure maximum compliance with local legislation. THY International Office Tax Checklist document was created in order to check the compliance of foreign operations with tax legislation. The Tax Department monitors the Prevention of Double Taxation Agreements and Bilateral Aviation Agreements, and closely follows the opportunities and risks regarding the tax transactions of foreign offices and directs ongoing practices.

CONTRIBUTION TO THE EMPLOYMENT GENERATION

Aviation industry in Türkiye is considered as one of the important employment resources. An employee working in air transport services is 175% more productive while generating higher gross added value compared to a non-sector employee in Türkiye.¹

Turkish Airlines, which provided direct employment opportunities to 37,325² people in 2021, represented a significant portion of the direct employment opportunities provided by the aviation industry in Türkiye in 2021, with the direct employment opportunities of approximately 60 thousand people, together with its subsidiaries.

CONTRIBUTION TO TÜRKİYE'S EXPORT

Turkish Airlines not only directly contributes to the country's exports as Türkiye's largest exporter with a service export figure of 8.7 billion USD in 2021, but it also contributes indirectly by increasing the connectivity of the country thanks to its identity as the airline that flies to the most countries in the world. Sales outside of Türkiye in 2021 constitute 82% of total sales.

¹ Economic Contribution of Aviation in Türkiye, Oxford Economics, 2011

²The figure includes data of Turkish Technic Inc., Turkish Flight Training and Airport operations Inc. and Turkish Airlines Technology Inc.

CONTRIBUTION TO DESTINATION ECONOMIES

By the end of 2021, Turkish Airlines has maintained its position as the airline company that flies to the most

destinations in the world, with flights to 333 destinations in 128 countries outside of Türkiye. Turkish Airlines operated flights to 25 of the 46 countries in the United Nations' least developed countries category in 2021. During the year,

approximately 1 million 110 thousand of the passengers carried in these 25 countries traveled with Turkish Airlines. By providing global connectivity, Turkish Airlines enables these countries to develop their economic and social relations with the world.

	2018	2019	2020	2021
Turkish Airlines-Only International Routes	146	154	155	142
Turkish Airlines-Only International Routes within Top 20 Airline Companies	209	219	216	203
Turkish Airlines-Only International Destinations within Top 20 Airline Companies	30	30	24	22

333 Destinations

Turkish Airlines has maintained its position as the airline company that flies to the most destinations in the world, with flights to 333 destinations in 128 countries outside of Türkiye.



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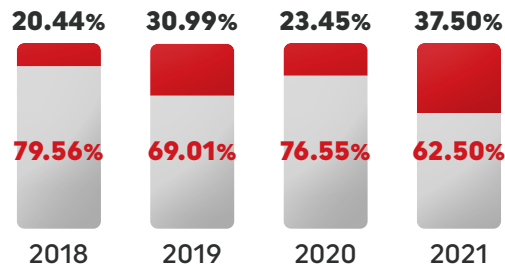
CONTRIBUTION OF SUPPLY OPERATIONS

Turkish Airlines purchases products and services from many suppliers and business partners operating in various countries in order to carry out its activities. It is essential that these activities are evaluated in terms of both their economic impact and their social and environmental impact, and that they are carried out from local sources as much as possible. In this context, in 2021, Turkish Airlines meets 62.50% of its purchasing operations on an expenditure basis and 76.80% on a supplier basis from local suppliers.

On the other hand, Turkish Airlines also contributes to the social and environmental development of its suppliers in order to support sustainable

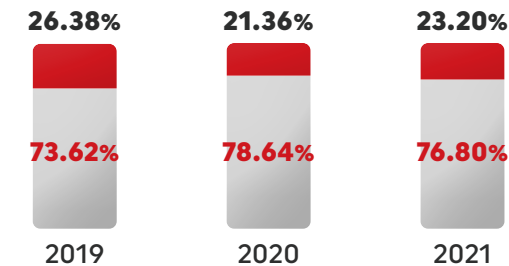
development across the value chain. All suppliers that have entered the supplier pool through the THY Supplier Evaluation System are evaluated, and the results obtained affect the supplier selection criteria. In the contracts signed with the suppliers, articles regarding the social rights of the employees and the protection of the environment are included. Within the scope of Qualiteam audits, THY's new audit model, compliance with environmental issues is monitored in audits conducted for ground service companies, fuel providers, terminal operators within the scope of management systems standards, legal provisions and contracts. In addition, companies from which call centers, catering and transportation services are provided are audited periodically and their compliance levels are evaluated.

LOCAL PROCUREMENT RATE BY EXPENDITURE

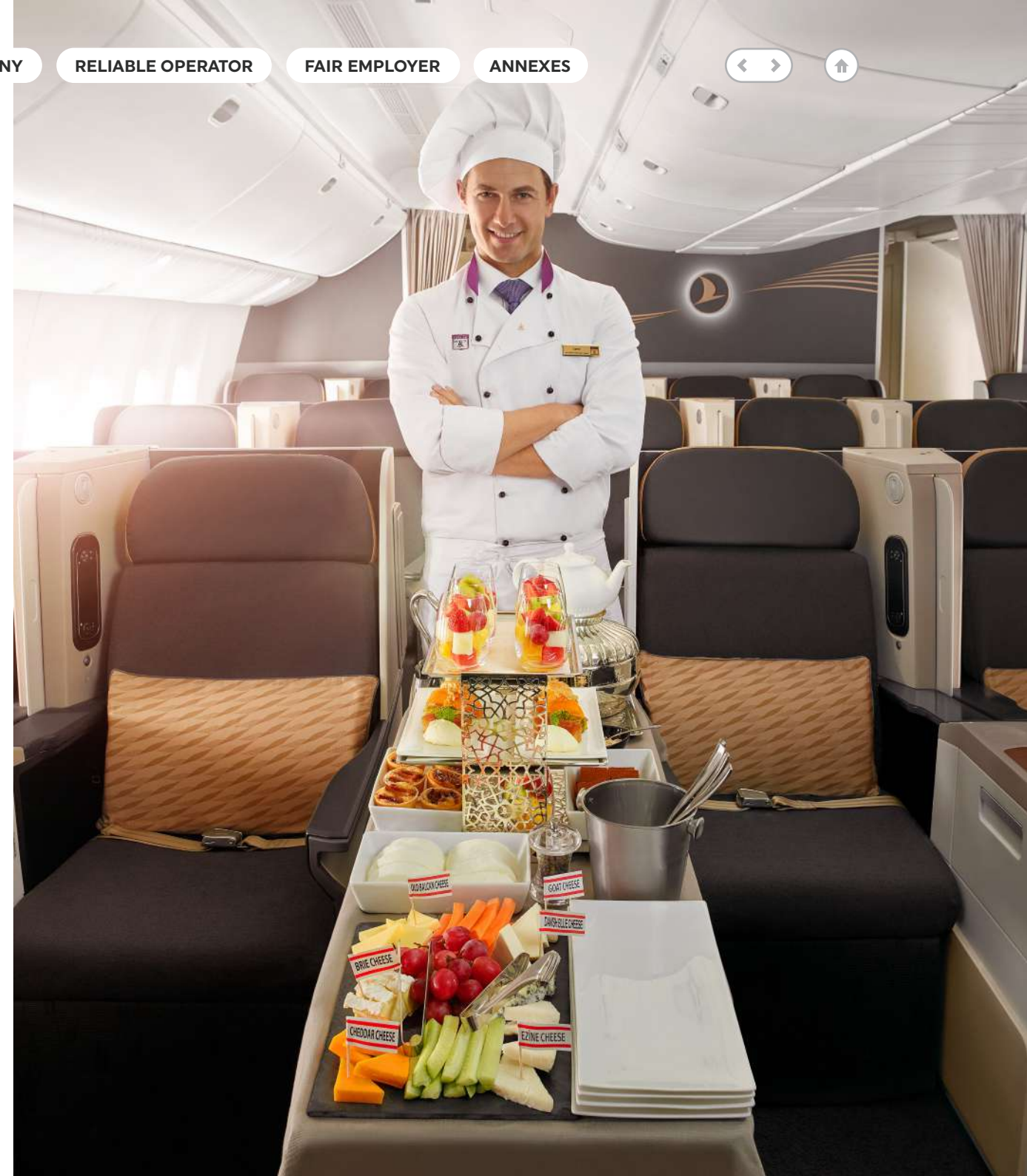


■ Local Supply ■ International Supply

LOCAL PROCUREMENT RATE BY NUMBER OF SUPPLIERS



■ Local Supply ■ International Supply





Management Fundamentals



Corporate Governance



GRI-102-18

Turkish Airlines, which was established as a state-owned enterprise in 1933, was included in the scope of the privatization program in 1990 and has become an Incorporation with 50.88% of its shares are publicly traded as of today. The 49.12% shares of the Incorporation held by The Privatization Administration of Türkiye in the Ministry of Treasury and Finance were transferred to the Türkiye Wealth Fund in 2017. The Privatization Administration Directorate of the Ministry of Treasury and Finance currently holds 1 Class C share. The Incorporation, whose shares are publicly traded on Borsa Istanbul (BIST), is subject to the provisions of the Turkish Commercial Code and the regulations of the Capital Markets Board (CMB).

As Türkiye's flag carrier airline, Turkish Airlines aims to promote and represent the Turkish aviation industry in the international arena in the best way possible and strives to set an example of "good governance" with its management culture, principles, and quality in addition to its activities. Having adopted the principles of transparency, accountability, justice, and responsibility as the basic principles in its working culture, the Incorporation makes an internationally acclaimed corporate governance approach dominant in the company's management. In this respect, while complying with all the mandatory principles of the Corporate Governance Principles determined by the Capital Markets Board, Turkish Airlines also pays utmost attention to comply with non-mandatory principles.

STRUCTURE AND WORKING PRINCIPLES OF THE BOARD OF DIRECTORS

Turkish Airlines Board of Directors is the main representative and administrative body of the Incorporation. It is comprised of nine members, three of whom are independent Board Members, who meet the independence criteria specified in the corporate governance regulations, also elected by the General Assembly. Three members of the Board of Directors are appointed to the Executive Committee. In order to establish the management flexibility and fast decision-making necessary for success in the dynamic structure of the aviation industry, the Chairman of the Board of Directors is also the Chairman of the Executive Committee. As of the reporting period, one female member is serving in the Board of Directors.

Members of the Board of Directors are elected by the General Assembly for a two-year term of office from among professionals who meet the conditions set forth in the Turkish Code of Commerce and Capital Markets Regulations and stand out with their professional competence and experience. Eight members of the Board of Directors are elected by the Ordinary or Extraordinary General Assembly, from the candidates who received the highest votes among the A Group shareholder, and one member from the candidate nominated by the C Group shareholder. Therefore, there is no classified or staggered Board of Directors membership structure. Members

of the Board of Directors whose terms of office expire can be re-elected.

Ordinary General Assembly meetings are held at least once a year and in accordance with the regulations, while Extraordinary General Assembly meetings can be held when deemed necessary. Shareholders or their proxies present at the General Assembly meetings have one vote for each share. Although the voting process is carried out by open voting, secret voting can also be carried out upon the request of shareholders with a share value above 10%.

The Board of Directors convenes with the participation of at least 6 members and takes its decisions with the affirmative votes of at least 5 members. The decision to make proposals to the General Assembly on fundamental issues such as amendments to the Articles of Association, mergers and acquisitions, and issuance of shares depends on the attendance and affirmative vote of the Board member representing the Group C shareholder in the meeting where these decisions are taken. Group C shares can be transferred to another Turkish public institution without the need for a Board of Directors decision, in line with the authorities granted by the relevant laws to the Directorate of Privatization Administration.

While there is no restriction regarding the members of the Board of Directors to take on other duties outside the company, the duties of the members of the Board of Directors outside the company are presented to the information of the shareholders at the General Assembly meeting and through the Public Disclosure Platform (KAP).

GRI-102-18

Members of the Board of Directors are responsible, without limitation, for all duties other than the duties and authorities given to the General Assembly by the relevant legal regulations and the Articles of Association of the Incorporation, and they also have all the authorities required by these duties. In order to fulfill these duties and increase efficiency in company representation and administrative processes, the Board of Directors may delegate some or all of its administrative and representative competencies to one or a multiple number of members, to non-board member senior or mid-level executives, to executive committees formed with participation of members or non-members of the Board, or to Committees which may be formed in accordance with the provisions of the Capital Markets Law and relevant regulations.

In line with the Turkish Commercial Code and CMB regulations, the Audit Committee, the Corporate Governance Committee and the Early Detection of Risk Committee have been established in order to increase the operational efficiency and governance quality of the Board of Directors. All members of the Audit Committee and the chairmen of other committees are elected from among the independent members of the Board of Directors. The Corporate Governance Committee also performs the duties of the Nomination Committee and the Remuneration Committee.

The Committees of the Board of Directors can benefit from the opinions of independent experts on the matters they deem necessary regarding their activities, as specified in the Corporate Governance

Communiqué. The cost of consultancy services required by these committees is covered by the Incorporation. However, in this case, information about the person/organization from which service is provided and information about whether this person/organization has any relationship with the Incorporation is included in the annual report.

Turkish Airlines Board of Directors convened 55 times in 2021, in which all members have attended.

According to Turkish Airlines Remuneration Policy, a fixed fee is determined for the members of the Board of Directors at the Ordinary General Assembly meeting each year. In addition to the fixed remuneration determined at the General Assembly, the members of the Board of Directors and the Executive Committee can be paid additionally or provided with fringe benefits in the amount determined by the Board of Directors within the framework of the opinion of the Corporate Governance Committee, in accordance with the criteria specified in the Remuneration Policy. While determining the remuneration of the independent members of the Board of Directors, care is taken to ensure that they maintain their independence.

Members of the Board of Directors of the Incorporation and the organizational chart are included in the **2021 Annual Report** on pages 28-30 and 128-129.



COMMUNICATION WITH SHAREHOLDERS

In line with the principles of transparency and accountability, Turkish Airlines carries out the necessary efforts to provide accurate, consistent and timely information about the Incorporation to its stakeholders such as shareholders, investors and investment analysts. The Investor Relations Department, which reports to the CFO (Chief Financial Officer), is responsible for the systematic and efficient execution of these efforts.

In line with the Public Disclosure Policy, the Investor Relations Department operates in the fields of communication, information exchange and monitoring between the Board of Directors and capital market regulators and participants. In this context, presentations are made at investor conferences, teleconference meetings, corporate and individual investor meetings are held in order to share financial, operational and strategic developments related to the Incorporation with investors and analysts. All announcements made on the Public Disclosure Platform are published on the Investor Relations website of the Incorporation, at the latest, one business day after the announcement. Press releases, bulletins and announcements made by the Incorporation through

written and visual media and data distribution channels are published under a separate title on the investor relations website in order to facilitate access by investors. On the other hand, transparent communication with stakeholders is strengthened with the Investor Relations Application running on smart devices, and it is facilitated for all our stakeholders to access several corporate documents such as the latest developments, material disclosures, operational and financial statements, investor presentations, annual reports, in English and Turkish.

Through the Electronic General Assembly System (e-GKS), it is possible for shareholders, delegates, intermediary institutions, and all stakeholders to participate in the General Assembly Meeting online using their own electronic signatures, via video webcast application, to convey their views, and most importantly, to be instantly informed about business processes.

General Assembly meetings are the most fundamental channel where shareholders can ask questions about the company and directly convey their opinions, suggestions, and complaints to the Board of Directors. At the General Assembly meeting of 2021, 8 of our shareholders conveyed their demands, complaints, and suggestions to the Board of Directors.

General Assembly Meetings

	Fiscal Year 2018	Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021
General Assembly Dates	28.06.2019	31.03.2020	26.03.2021	29.03.2022
Number of shareholders present, represented, granting power of attorney to chairman or voting by email	504 shareholders representing 943,139,813 shares	379 shareholders representing 815,072,841 shares	367 shareholders representing 879,352,441 shares	301 shareholders representing 842,423,123 shares
Attendance Rate	68.34%	59.06%	63.72%	61.05%





Risk Management



GRI-102-11

RISK MANAGEMENT STRATEGY

The aviation industry is a field of activity with its own characteristics that can be impacted by international developments, operational factors, financial climate, and numerous other factors. In this highly competitive industry, Turkish Airlines, which continues to develop by distinguishing itself positively from its competitors, implements an effective and multi-dimensional risk management strategy to maintain its successful operational and financial performance. In this direction; various risk categories, including social and environmental issues, that could compromise the existence, development and continuity of the Partnership are being evaluated.

The Early Detection of Risk Committee, established at the level of the Board of Directors, is the highest-level management body responsible for controlling the efficiency and reliability of the risk management systems and processes followed. The financial risk management strategy of the Incorporation and the management of the risks it is exposed to are managed by the Treasury and Risk Management Commission. Generally accepted and reliable tools in the field of risk management are used in the evaluation of the identified risk factors according to the agreed risk limits and in deciding the necessary measures.

A fuel price hedging strategy has been developed to avoid fluctuations in the cash flow and company profitability of the changes that will occur in the fuel prices. Additionally, we aim to ensure a healthy and sustainable cash flow by ensuring the harmony between income and payments.

More detailed information on risk management can be found on pages 126-127 of [Turkish Airlines 2021 Annual Report](#).



INTERNAL AUDIT AND CONTROL

Directorate of Inspection Board, which operates under the Executive Committee, is responsible for auditing the activities of the Incorporation, the effectiveness of corporate governance, risk and control processes and providing consultancy, validation services, opinions and suggestions on the efficiency and effective operations of these processes.

In this context, Directorate of Inspection Board, via reports it periodically submits to the senior management, makes recommendations on errors, frauds and abuses that may cause loss of income and assets of the Incorporation, precautions to be taken and risk mitigation measures, which it detects through the activity, unit and process audits it carries out. Afterwards, it monitors whether the measures determined are put into practice in the light of the findings and recommendations are fulfilled.

The Corporate Governance Committee, the Audit Committee, and the Early Detection of Risk Committee, which function under the Board of Directors of the Incorporation, carry out their activities within the framework of the relevant regulations and the duties and working principles determined by the Board of Directors and inform the Board of Directors. The Audit Committee meets before the announcement of the quarterly financial results and ensures that the consolidated financial results to be announced to the public are transparent and accessible, and that all necessary measures are taken to ensure that the work of the independent external audit is carried out in a transparent and efficient manner. The Committee also oversees the operation and effectiveness of the Incorporation's internal control and internal audit system. In this context, the Audit Committee submitted four reports to the Board of Directors in 2021.



INFORMATION SECURITY

Most activities of the Incorporation consist of highly digitized systems and data-driven business processes. It is prominent to ensure information security and to continuously improve security processes to carry out business processes in a healthy manner and in compliance with the relevant regulations.

Information Security Management System (ISMS) and Information Security Policy have been established in accordance with the ISO 27001 Information Security Management Standard to ensure that all critical company information, especially customer information, is managed and protected efficiently. In the management of information security risks, internationally accepted cyber risk management approaches such as NIST and ISACA are followed.

Various follow-up mechanisms have been established to meet the information security expectations arising from all legal regulations to which Turkish Airlines is subject, and to monitor and improve them regularly. In this context, the performance criteria defined in the relevant procedures are evaluated at least once a year. Corrective actions are planned by subjecting the

Information Security Management System to the internal audit process at least once a year. The results of all these studies are presented to the senior management and the performance of the Information Security Management System is evaluated by the senior management.

Various business units have been established in order to ensure information security in the activities of Incorporation. The Security Solutions and Governance Management, under the Directorate of IT Security, is responsible for the creation of security policies, cyber security architecture, and regulatory compliance processes. Cyber and Security Operations Management is responsible for all cyber security operations of the Incorporation. The main tasks of the Cyber Defense Center, which operates uninterruptedly, are to monitor and respond to potential cyber-attacks, and to take countermeasures against detected cyber threats.

During the reporting period, many studies were carried out on data security, application security, network security, end-user security, system security, border security, cloud security, and physical security in order to improve our information security systems and applications.




Business Ethics and Code of Conduct

OUR APPROACH TO BUSINESS ETHICS


In line with the values it represents, Turkish Airlines considers business ethics and code of conduct principles in all its operations and decisions. Within the framework of the Corporate Governance Principles, the Code of Ethics has been prepared by the Board of Directors in order to guide the Incorporation's managers, employees and stakeholders on the ethical behavior principles to be followed.

The principles set forth in the Turkish Airlines Code of Ethics, which is binding for all our managers and employees, have been established to ensure that all Incorporation managers and employees behave in accordance with high ethical standards and act with awareness of the impacts of their attitudes and behaviors.

The principles defined in the Code of Ethics cover various issues such as our corporate values, compliance with legislation, the fight against bribery and corruption, and the prevention of anti-competitive behavior. In this way, it is ensured that our managers and employees prioritize respect for corporate and social norms, generally accepted moral rules in working life, laws and the environment in their

activities, discourses and behaviors. Every employee who starts working within our Incorporation is informed about the Code of Ethics Handbook and Corporate Ethics Procedures. Turkish Airlines Code of Ethics can be accessed from the  **Sustainability** section of our corporate website.

In 2021, the studies have been begun on the creation of a new Business Ethics and Code of Conduct document by developing the content of the Ethical Values Handbook. We aim to publish this

document in the coming period, which will cover issues such as international sanctions and compliance with export limits, money laundering, bribery and corruption, which have emerged as a result of developments in recent years, as well as basic business ethics issues. Parallel to this, in 2021, efforts were initiated to create a Supplier Code of Conduct to monitor the compliance of our suppliers with ethical rules, and a  **Human Rights and Employee Rights Policy** to systematize the Incorporation's commitment to human rights.



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CODE OF ETHICS TRAININGS

A Code of Ethics Training was created for our employees and managers in order to learn and adopt Turkish Airlines Ethical Values and the attitudes expected to be exhibited in suspicious situations. This online training program, which is mandatory for all our employees and managers, is held in Turkish and English.

In addition to the generally accepted business ethics principles, 6,207 employees participated in these

trainings, which also include issues such as anti-bribery and anti-corruption, and fair competition, and a total of 3,103 person*hours of training was provided.

In addition to the Code of Ethics and Ethics Committee Training, subject-specific presentations are prepared to increase the knowledge and awareness of managers and employees on various business ethics issues. For the same purpose, awareness studies are carried out on ethical issues through internal communication channels such as e-mail notifications, in-house magazines and posters.

Code of Ethics Trainings	2018	2019	2020	2021
Total number of training participants (person)	5,910	4,320	2,420	6,207
Total training hours (person*hour)	2,955	2,160	1,210	3,103

In 2021, trainings, which also include issues such as anti-bribery and anti-corruption, and fair competition trainings

**6,207**

employees participated

**3,103**

person*hours of
training was provided.



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REPORTING ABUSES

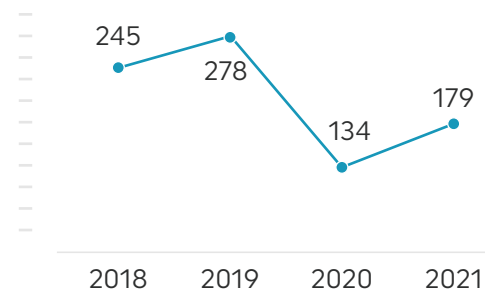
Turkish Airlines employees have access to Ethics Line, where they can openly share and ask questions about behaviors or suspicious situations that violate our corporate ethical principles, particularly discrimination, bribery and corruption, conflict of interest, and anti-competitive practices. All notifications received through this communication channel, which is managed by an independent third-party organization, are evaluated engagedly by the Ethics Committee. As a result of the evaluation, the Ethics Committee determines the measures to be taken.

The Ethics Committee, consisting of five representatives, one of whom is the Chairman and four members, determined by the CEO, is responsible for the adoption of the ethical values throughout the Incorporation and their reflection on the working culture, making it a habit for the employees to question whether their discourse and behavior in the business environment is in line with ethical values, and guiding the employees when they encounter suspicious situations, and resolving the conflicts that arise. The Ethics Committee aims to create a positive, diverse, open and inclusive work environment where employees and others can ask questions,

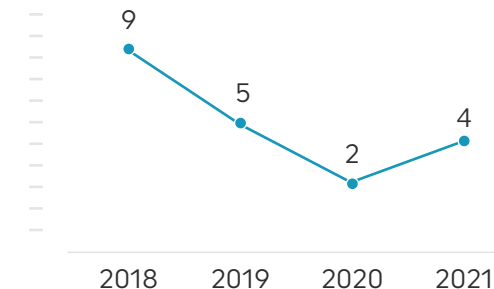
raise concerns about work-related ethical issues, request an investigation or report violations without fear of retaliation. In 2021, 179 applications made to the Ethics Line were evaluated by the Ethics Committee or its subcommittees, and all of them were resolved.

Creating a fair working environment is both an important component of our Business Ethics Values and a prerequisite for creating a successful organization. An important part of this is not to allow discriminatory attitudes and behaviors in our operations. For this reason, employees are encouraged to report any suspected discriminatory behavior through the Ethics Line or other channels. During the reporting period, 4 applications were made on suspicion of being exposed to discriminatory behavior. The applications made were examined and it was seen that they were not of the nature to require a further action in line with the information presented. As an Incorporation in which tens of thousands of employees operate together with its subsidiaries, the low number of case reports is positive, but showing that even a single case is unacceptable if it reflects a real discrimination situation is also important in terms of ensuring the functionality of the notification and solution generation systems.

Number of Ethics Line Applications



Number of Reported Discrimination Cases





ANTI-CORRUPTION

The fight against bribery and corruption is one of the cornerstones of our business ethics. In line with Turkish Airlines Code of Ethics, we set ourselves high standards in the fight against bribery and corruption, and act in accordance with the guiding principles of the aviation industry and the legal regulations of the countries in which we operate.

In order to reduce the risks of bribery and corruption, the roles of the relevant units such as the senior management, Directorate of Inspection Board, Directorate of Security, the Audit Committee, the Ethics Committee, the Disciplinary Committee and the Human Resources, as well as the employees in general, have been determined, and internal control mechanisms have been established in order to effectively monitor these risks within the Incorporation.

Bribery and corruption audits are also included in the scope of internal audit programs in order to detect possible abuses in company activities and to take necessary measures. With a risk-based approach, 5% of business units were audited for corruption risks in 2021 within the scope of the annual audit plan. In 2021, no findings regarding the violation of the bribery and corruption policy were detected against Turkish Airlines, and no administrative or fines or judicial sanctions were applied in this regard.

LEGAL COMPLIANCE AND FAIR COMPETITION

Aviation sector is a field of activity which is subject to a vast number of regulations created by the international organizations and the countries in which it operates. The dynamic nature of the regulations to which it is subject requires a proactive approach in legal compliance processes. For this purpose, efforts continued to establish a Compliance Department within the Directorate of Legal and to change the name of the Directorate of Legal to "Directorate of Legal and Compliance" during the reporting period. Planning regarding the structuring of money laundering, anti-corruption, bribery and other compliance issues within the Compliance Department to be established and for the reporting structure of this department are carried on.

The rules that Turkish Airlines is obliged to comply with in line with its authorization and certificates for its operations are audited and the compliance index is calculated and reported based on the findings. Due to the violation of the laws governing the provision of products and services in 2021, a fine of 107,989 TL was issued against our Incorporation, and the total amount of significant monetary fines issued against our Incorporation in the relevant year is 1.1 million TL. However, 1 suspension penalty was received in 2021.

As a company that is constantly growing and ranks high not only in the country but also on an international scale, it is of great importance for Turkish Airlines to maintain its compliance with the Competition Act and relevant regulations. In order to develop this awareness throughout the organization, trainings on fair competition practices are provided to managers and employees at all levels. In the trainings, the participants are

informed about the situations that are against the conditions of fair competition, and the tools and methods that can be used in the detection and prevention of non-compliance are introduced. In 2021, no findings regarding the violation of the competition rule were detected against Turkish Airlines, and no administrative or judicial sanction was imposed on our Incorporation regarding the Competition Act.

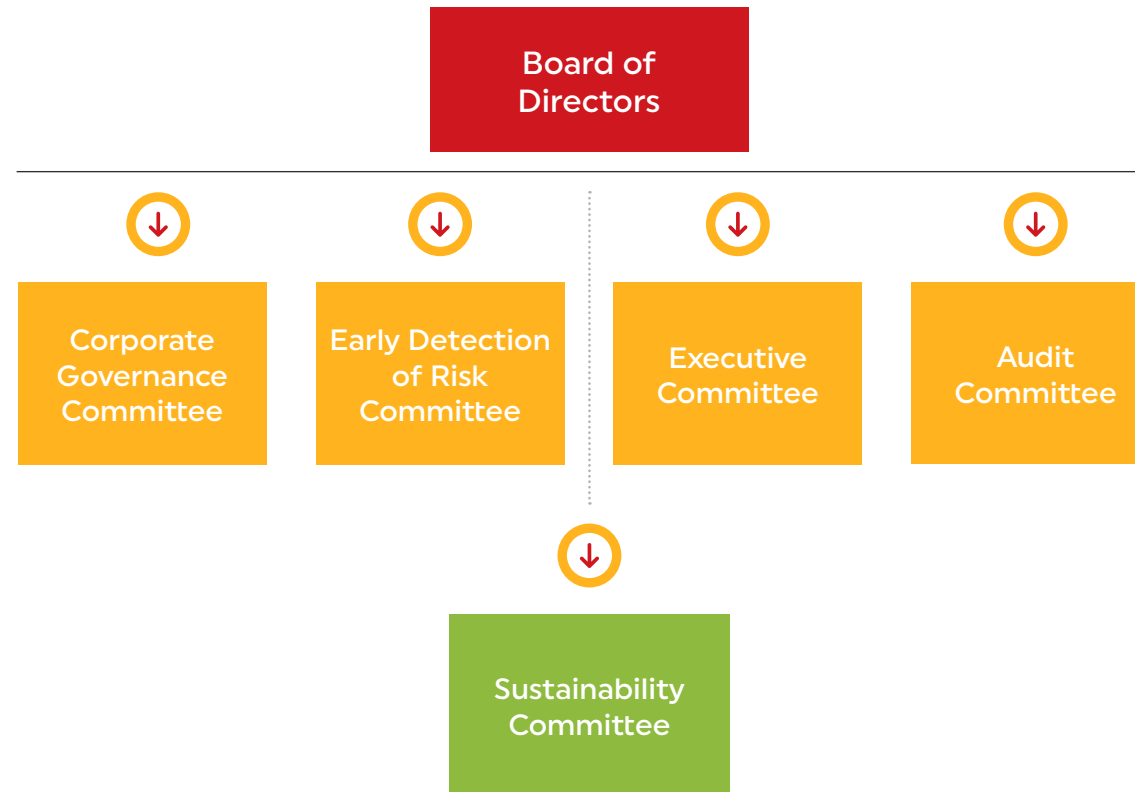




Sustainability Management

SUSTAINABILITY MANAGEMENT STRUCTURE

The management of the social, economic and environmental impacts arising from the activities of Turkish Airlines and the assessment of sustainability risks and opportunities that may impact the activities of the Incorporation are under the responsibility of the Board of Directors and the Executive Committee. In order to carry out these responsibilities effectively at all levels of the Incorporation's activities, the Sustainability Committee, whose members are Turkish Airlines senior executives, was established in 2021. The Chairman of the Sustainability Committee is the CEO of Turkish Airlines, and the Vice Chairman is the Chief Investment and Technology Officer.



Although the chart above is not the organizational chart of Turkish Airlines, it shows the units that represent the management of the relevant processes.

The Sustainability Committee, which convenes under the chairmanship of the CEO with the participation of the Chief Officers and the SVP (Senior Vice President) of Subsidiaries, convenes at least once every quarter. Apart from these meetings, if needed, the Committee may meet again without waiting for the meeting period.

The Sustainability Committee carries out its activities to determine, review and continuously improve the sustainability management strategy, sustainability policy and short, medium and long-term sustainability targets, and to decide on improvement projects that will increase the sustainability performance of Turkish Airlines. The Sustainability Committee reports to the Board of Directors the risks and opportunities regarding material sustainability issues, its evaluations of the performance results obtained as a result of its establishment activities, the feedback from internal and external stakeholders, and the practices it has decided to increase



the sustainability performance of the Incorporation in light of this information.

Decisions taken by the Sustainability Committee are communicated to all relevant Incorporation units. The Corporate Sustainability Management Department is responsible for following the decisions taken by the committee, and the relevant units are responsible for planning the necessary studies and putting these studies into practice. Projects and practices implemented by the units are reported to the Committee by the Corporate Sustainability Management Department.

To carry out business in line with our Incorporation's sustainability strategy, Sustainability Sub-Working Committees have been established by taking into account the priority sustainability issues of the Incorporation, issues prioritized by the sector, successful sector practices, sector trends, and legal and other conditions.

Taking these issues into consideration, the Sustainability Sub-Working Committees determine the projects that can be implemented in the Incorporation and submit them to the Sustainability Committee for approval. In line with the decision taken by the Sustainability Committee, it performs and monitors the necessary studies and reports the results to the Sustainability Committee. Sub-Working Committees meet quarterly. The organization of the meetings, the coordination between the Sustainability Sub-Working Committees Members and the follow-up of the decisions taken are provided by the Sustainability Committee Secretariat.

SUSTAINABILITY INDICES

Turkish Airlines aims to increase the scores it has achieved in the performance evaluations of national and international indices and sustainability rating agencies such as DJSI, FTSE4Good, MSCI, EcoVadis, Sustainalytics, TPI and Borsa Istanbul Sustainability Index to which it voluntarily participates. As a result of the evaluations of the world's leading rating agencies in 2021, the Incorporation managed to increase its scores in terms of both the company and the sector average compared to 2020.

With the Sustainalytics ESG Risk Rating Score it received in 2021, Turkish Airlines ranked 1st in the "lowest risk" ranking among 69 participants in the airline sub-sector, and succeeded in being in the "lowest 1% risk segment" in its sector; In the evaluation carried out by Ecovadis, it was awarded in the "Bronze" category.

In 2021, the Incorporation was also entitled to be listed on the BIST Sustainability Index, which is comprised of companies traded on Borsa Istanbul with high corporate sustainability performances.



Duties and Responsibilities of the Sustainability Committee

Sustainability Committee, regarding Turkish Airlines activities, is responsible;

- To ensure that the necessary steps are taken to determine the sustainability strategy, policy, short, medium, and long-term goals of the Incorporation,
- The short, medium, and long-term objectives of our Sustainability Policy are to monitor, review and, if necessary, rearrange the status of improvement projects,
- To secure that sustainability risks and opportunities in environmental, social and governance issues are managed and integrated into the sustainability strategy of the Incorporation,
- To ensure that necessary studies are carried out within the Incorporation in order to comply with national and international legislation, standards, rules, contracts, procedures and requirements in the field of sustainability,
- Evaluating the expectations of the parties concerned with the current national and international developments in sustainability, ensuring that the best practices are projected within the Incorporation and monitoring the progress of the projects,
- Analyzing the results by monitoring the status of sustainability performance indicators and ensuring that improvement actions are taken, when necessary,
- Ensuring that employees are informed in line with the sustainability strategy and studies are carried out to adopt this strategy as a company culture,
- To assure that the sustainability strategy, policy, and practices are adopted by all stakeholders of the Incorporation,
- Evaluating the requests regarding the Sustainability Performance Evaluations that the Incorporation will participate in and deciding whether to participate or not,
- To evaluate the issues that will affect the activities of the Incorporation, which are addressed in the national and international committees, technical teams and working groups of which the Incorporation is a member,
- Evaluation of the project and decision proposals submitted by the Sustainability Sub-Working Committees,
- Responsible for authorizing Sustainability Sub-Working Committees to be formed within the Incorporation, if necessary.



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SUSTAINABILITY PRIORITIES

The main focus of Turkish Airlines Sustainability Strategy is the social, economic and environmental issues that may have an impact on or be impacted by products, services or activities of the Incorporation. These issues are prioritized, classified and constitute the sustainability strategy of the Incorporation through a systematic process designed in line with international standards and incorporating the views and suggestions of external stakeholders.

Our priorities within the scope of sustainability were reconsidered in the reporting period of 2021. In this process, global megarisk trends, international initiative and reporting standards and prominent practices in the aviation industry were taken into consideration. As a result, social, economic and environmental issues specific to the Turkish Airlines Sustainability Program were determined. In the process to determine the material issues, 17 Sustainable Development Goals were evaluated in terms of the effects, risks and opportunities they may have on Turkish Airlines activities, products and services. A total of 1,434 Turkish Airlines employees, including 98 managers, 857 office workers, 479 flight crews; and 281 external stakeholders including investors and shareholders, customers, financial institutions, subsidiaries, suppliers, insurance and broker companies, participated in the study.

Highly Material Issues

- Support for the Social Development
- Fair Competition
- Water Management
- Single Use Plastic
- Sustainable Catering
- Noise Management
- Responsible Supply Chain Management
- Innovation



The findings of this study have been reevaluated in a workshop with a broad participation of company executives. Finally all results have been reviewed by senior executives and priorities were set upon their approval.

Turkish Airlines Sustainability Priorities

The Most Material Issues

- Flight Safety and Security
- Climate Change
- Employee Health and Safety
- Changes in Customer Expectations and Behaviour
- Fleet Modernization and Development
- Digitalization
- Business Continuity
- Talent Management
- Waste Management



Material Issues

- Human Related Environmental Disasters
- International Crises
- Animal Welfare
- Global Economic Crises
- Biodiversity Loss



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SUSTAINABILITY STRATEGY

Turkish Airlines Sustainability Strategy roadmap is created by taking into account the highest priority social, economic and environmental issues, the mission, vision and core values of the Incorporation, long-term goals, and the risks and opportunities that may arise while achieving these goals.

In this direction, the Sustainability Strategy of the Incorporation stands by the definition of "creating value for the future by going beyond today's achievements, based on the expectations of employees, customers, suppliers, affiliates, all business partners and shareholders, and with the understanding of business excellence and innovation in light of global trends, with a holistic approach to all emerging environmental, social and economic impacts and an effective risk management."

The Sustainability Strategy of the Incorporation, which is managed with a dynamic approach, is regularly reviewed in light of the results of the materiality study, the new regulations that came to the agenda during the period, and stakeholder feedback.



MANAGEMENT FUNDAMENTALS

Corporate Governance
Business Ethics
Legal Compliance
Risk Management
Customer Satisfaction
Financial Performance



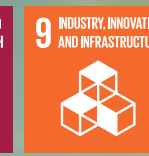
RESPONSIBLE COMPANY

Climate Change
Waste Management
Fleet Modernization



RELIABLE OPERATOR

Flight Safety and Security
Employee Health and Safety
Business Continuity
Digitalization
Changes in Customer Expectations and Behaviour




FAIR EMPLOYER

Talent Management









Based on the sustainability strategy, the Incorporation Sustainability Policy, which was created to bring together the future of Turkish Airlines and all its stakeholders, who play an important role in the value chain, for the same purpose, is available to all our stakeholders on the corporate website.

We aim to prepare a new Corporate Sustainability Training program in 2022 in order to increase the knowledge and awareness of the employees of the Incorporation on the basic components of the Sustainability Strategy and the main principles in the  **Sustainability Policy**.






Support of Turkish Airlines to the Sustainable Development Goals

As part of its sustainability program, Turkish Airlines supports the Sustainable Development Goals (SDGs) announced in 2016 by United Nations member countries with the aim of reaching them by the end of 2030. Sustainable Development Goals, which consist of 17 global goals, were discussed within the scope of Turkish Airlines' materiality study, and SDG5, SDG7, SDG8, SDG9, SDG12, SDG13, SDG16, SDG17 were identified as working areas to be targeted in the future. In addition, considering Turkish Airlines' sphere of influence and the scope of its value chain, it is obvious that the work carried out also contributes to many other SDGs.

Supported SDGs	Sub-Goals	Description	References
 	1.1 Eradicate extreme poverty 1.4 Equal rights to ownership, basic services, technology and economic resources 2.4 Sustainable food production and resilient agricultural practices	<p>Thanks to the value chain it creates and the socio-economic connection it provides between flight destinations, Turkish Airlines generates direct and indirect economic value in the geographies in which it operates and creates employment for over 60,000 people together with its subsidiaries. Each employment created in the aviation sector is 175% more productive compared to other sectors and creates a greater added value.</p> <p>Turkish Airlines operated flights to 25 of the 46 countries in the United Nations' least developed countries category in 2021. In this context, Turkish Airlines carries the production of underdeveloped or developing countries to target markets, making a positive contribution to their economic development, thus employment and income, while also enabling these countries to improve their social relations with the world.</p> <p>Microalgae-based Sustainable Bio-Jet Fuel Project studies are carried out with R&D projects developed together with universities, and thanks to the developed technique, the use of agricultural lands for the production of sustainable aviation fuels is prevented. Sustainable biofuel will be produced without plant seeds used as food, not competing with agricultural production, and without polluting water, soil and other natural resources.</p>	Support to the Economy (p.14) Sustainable Biofuels (p.55)
	3.3 Fight communicable diseases 3.8 Achieve universal health coverage 3.B Support research, development and universal access to affordable vaccines and medicines	<p>With its end-to-end cold chain corridor created on more than 400 different routes, Turkish Cargo plays an active role in the market in transporting vaccines and medicines at appropriate temperatures and conditions. The importance of the vaccine and medical supply chain has emerged in the clearest way under pandemic conditions, and Turkish Airlines undertook an important task with these practices that it continued in 2021.</p> <p>Turkish Airlines' role in the transportation of vaccines and medical supplies is not limited to the pandemic conditions. In several geographies, the transportation of vaccines and medical supplies is also of critical importance during non-pandemic periods. Through flights to several destinations in various geographies, primarily in Africa, Turkish Airlines provides these populations with access to vaccines and medicines by transporting vaccines and medical supplies to these regions.</p>	Turkish Airlines 2021 Annual Report (s.58)
	4.3 Equal access to affordable technical, vocational and higher education 4.4 Increase the number of people with relevant skills for financial success 4.5 Eliminate all discrimination in education	<p>It is prerequisite for operating in the aviation sector to have a human resource with the highest level of training and professional capacity. With its international competencies, experience and technical infrastructure, Turkish Airlines plays an important role in both the training of its own employees and bringing new professionals to the sector. In this context, Turkish Airlines' support for undergraduate and graduate programs of universities and collaborations established with them, enables employee development, improves sectoral knowledge and increases employment opportunities.</p>	Talent Management (p.85)

Supported SDGs	Sub-Goals	Description	References
	5.1 End discrimination against women and girls 5.5 Ensure full participation in leadership and decision-making 5.C Adopt and strengthen policies and enforceable legislation for gender equality 10.2 Promote universal social, economic and political inclusion 10.3 Ensure equal opportunities and end discrimination 10.4 Adopt fiscal and social policies that promotes equality 10.A Special and differential treatment for developing countries	<p>Diversity and equality are amongst Turkish Airlines' most fundamental corporate values. Equal treatment of all employees in all areas is of primary importance in terms of both human rights and corporate policies. Studies are carried out to ensure that female employees take a balanced place in technical and managerial roles where there is insufficient representation and to improve their career opportunities, and within this scope, partnerships with national and international initiatives are developed. While the participation of disadvantaged individuals in the workforce is supported by fair wages and working conditions, working conditions are facilitated by responsible HR policies.</p> <p>With its end-to-end cold chain corridor created on more than 400 different routes, Turkish Cargo plays an active role in the market in transporting vaccines and medicines at appropriate temperatures and conditions. During the COVID-19 pandemic, Turkish Cargo continued its flights to various developing and underdeveloped countries and maintained their connectivity; and supported these countries experiencing inequalities in access to vaccines and medical supplies.</p>	Gender Balance (p.87) Turkish Airlines 2021 Annual Report (s.58)
	7.2 Increase substantially the share of renewable energy in the global energy mix 7.3 Double the global rate of improvement in energy efficiency 7.A Supporting access to clean energy research, technology and investments 12.2 Achieve the sustainable management and efficient use of natural resources 12.4 Responsible chemical and waste management 12.5 Substantially reduce waste generation through prevention, reduction, recycling and reuse 12.6 Encouraging companies for sustainability practices and sustainability reporting 12.8 Promoting a universal sustainable lifestyle approach 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters 13.2 Integrate climate change measures into policies, strategies and planning 13.3 Building knowledge and capacity to combat climate change	<p>Turkish Airlines manages the environmental impacts arising from its operations in line with its Sustainability Policy and Environmental Policy, with the awareness of being a Responsible Company. In this context, impacts on the climate and the environment are managed with responsible practices and projections such as responsible procurement, waste management, energy and emission management, and clean energy, and the progress achieved by carrying out performance-enhancing studies is reported.</p> <p>Turkish Airlines carries out its activities to reduce the negative and irreversible effects of the global climate crisis and to minimize climate-related risks. Being fully aware of the impact of the aviation industry on climate change and acting with the awareness of the importance of efforts to reduce its carbon footprint, Turkish Airlines optimizes its flight operations to increase fuel efficiency, invests in new technologies, gives priority to aircraft and engines with high efficiency while including new generation aircrafts to its fleet. At the same time, Incorporation carries out sustainable bio-fuel research and development studies in cooperation with universities in order to reduce the amount of fossil-based aviation fuel use.</p>	Responsible Company (p.44)
	8.1 Sustainable Economic Growth 8.3 Promote policies to support job creation and growing enterprises 8.5 Full employment and decent work with equal pay 8.7 End modern slavery, trafficking, and child labour 8.8 Protect labour rights and promote safe working environments	<p>Aiming to generate economic value for its stakeholders with the business model it has developed with the awareness of being a fair employer and a safe operator, Turkish Airlines offers its employees a safe and fair work life that is open for development. Turkish Airlines, which accepts flight safety and security as a fundamental working standard that cannot be compromised under any circumstances, always aims for the highest standards in its operations.</p> <p>Conducting its operations in line with its principle of respecting human rights, Turkish Airlines assures all the rights of its employees with its ethical principles and policies. It provides a working environment where any practices that violate human rights such as modern slavery and forced labor, including human trafficking, cannot be found under the umbrella of the Incorporation.</p>	Support to the Economy (p.14) Fair Employer (p.85) Reliable Operator (p.69)



Supported SDGs	Sub-Goals	Description	References
	9.4 Upgrade all industries and infrastructures for sustainability	Turkish Airlines, the official flag carrier of the Republic of Türkiye and the airline that flies to most countries and international destinations in the world, has been constantly renewing its fleet since its foundation. With investments in new generation aircrafts, Turkish Airlines aims to expand its flight network while developing its young fleet with an average age of 8.5 years.	Sustainable Biofuels (p.55)
	9.5 Enhance research and upgrade industrial technologies	Investing in R&D and innovation, especially in digitalization activities, in order to ensure the endurance of its operations and increase business continuity, Turkish Airlines constantly improves its operating infrastructure. While focusing on solving problems with new generation technology companies thanks to its open innovation strategy, it develops new technologies by managing resource efficiency and carries out cooperation programs to create new opportunities.	Fleet Modernization (p.67) R&D and Inovation (p.80)
	11.2 Affordable and sustainable transport systems	The aviation industry connects cities in various parts of the world, bringing together cultures as well as economic activities. On the other hand, the aviation industry also has impacts on sustainable urban life, especially emissions and noise. In order to minimize these effects, Turkish Airlines continuously improves its operational capability with low emission and noise levels by making fleet modernization investments and contributes to reducing the negative environmental impacts of cities per capita through waste management practices.	Fleet Modernization (p.67)
	11.5 Reduce the adverse effects of natural disasters 11.6 Reduce the environmental impacts of cities	After the disaster, it organizes emergency aid operations by developing cooperation with NGOs and Public Institutions in order to meet the needs of the people of the region affected by the disaster.	
	15.3 End desertification and restore degraded land	Turkish Airlines signed the "United for Wildlife Buckingham Palace Declaration" (UFW), supported by IATA, which aims to prevent the illegal trade of wild animals and to raise sectoral awareness on this issue. Thus, it helps to prevent the illegal trade of wild animal parts such as ivory, rhino horns and tortoise shells. On the other hand, while environmentally friendly materials are preferred in the headset and blanket sets we offer to our passengers, the toys offered to our child passengers are produced with "Forest Stewardship Council (FSC)" certified products.	Sustainable Biofuels (p.55)
	15.7 Eliminate poaching and trafficking of protected species		Environmental Management (p.56)
	16.5 Substantially reduce corruption and bribery	Turkish Airlines carries out its activities in line with the principles of transparency and accountability, in line with the inclusive, internationally accepted corporate governance and ethical rules that are responsible to its stakeholders.	Management Fundamentals (p.19)
	16.6 Develop effective, accountable and transparent institutions 16.10 Ensure public access to information and protect fundamental freedoms 16.B Promote and enforce non-discriminatory laws and policies		
	17.6 Knowledge sharing and cooperation for access to science, technology and innovation	Turkish Airlines develops partnerships with various institutions and organizations in line with the 2030 Global Goals and common goals of sustainable development. By taking part in the sustainability initiatives created by international organizations that shape aviation practices, the practices of the Incorporation are developed and contribute to the formation of the international sustainability agenda.	Stakeholder Engagement (p.35)
	17.11 Increase the exports of developing countries 17.14 Enhance policy coherence for sustainable development 17.16 Enhance the global partnership for sustainable development 17.17 Encourage effective partnerships 17.18 Enhance availability of reliable data		Support to the Economy (p.14) Responsible Company (p.44)

Stakeholder Engagement



GRI-102-42 • GRI-102-43 • GRI-102-44

The main objective of Turkish Airlines Sustainability Strategy is to create a successful business model where sustainability impacts are managed throughout the value chain. In order to demonstrate a transparent and accountable management approach, the expectations of the stakeholders are taken into account in the decision-making processes of the Incorporation, and it is aimed to meet these expectations with the works carried out. To this end, stakeholder expectations and opinions are listened to through various channels, an open, fair and constructive dialogue is established, and collaborations created in line with the common good are developed. The communication channels and frequency of communication created within this scope differ according to the expectations and needs of the stakeholder group.



STAKEHOLDER GROUPS

COMMUNICATION METHODS

FREQUENTLY ASKED QUESTIONS AND RESPONSES



EMPLOYEES

Annual Reports (Annual), Sustainability Reports (Annual), Announcement Posters (Continuous), E-mail Messages (Continuous), Social Media (Continuous), Collective Bargaining Agreement (Periodically), Corporate Website (Continuous), Corporate Policies (Continuous), Trainings (Continuous), Ethical Line (Continuous), One-on-One Interviews (Annual), HR Messages (Quarterly), Empathy Intranet (Continuous), "HR Gaste" Employee Bulletin (Monthly), Individual recommendation system (Continuous)

The COVID-19 pandemic, which emerged in 2020 and continued in the reporting period, caused a significant transformation in the working conditions. Due to social isolation measures, remote working practices were carried out in various periods. In the reporting period, as the effects of the pandemic began to diminish, remote or hybrid working and flexible working hours practices were initiated in line with the demands of our employees regarding the working order.

The Ethical Line is one of the main communication channels through which the employees of the Incorporation can convey their notifications. During the reporting period, 179 notifications were made through the Ethical Line. It has been observed that these notifications are mainly related to the subjects of "act that disrupts the work peace" and "acts against the corporate culture". All of these subjects have been examined by the Ethics Committee. It has been decided to inform the relevant employees and units about the notifications deemed necessary to take action, and to impose administrative sanctions on behaviors contrary to working discipline.

The employees of the Incorporation can directly convey their work life issues, suggestions and opinions to the Human Resources units. In this context, questions were received regarding salary changes in 2021, and these demands were acknowledged by the Senior Management, and salaries were increased twice.



AGENCIES

Annual Reports (Annual), Sustainability Reports (Annual), Agency Visits (Monthly), Phone Calls (Daily), E-Mail Communication (Daily), Agency Agreements (Continuous), TÜRSAB Request and Complaint Notifications (Instant), Meetings and Interviews (Several Times a Year), Agency Portal and Notifications (Continuous), Official Notifications (On Request)

One of the major requests received from the agencies is to organize events and develop practices for establishing new business opportunities and business partnerships. In this regard, Fam Trip, launching meetings, events and workshops are organized in order to increase agency satisfaction; Promotional trips and events are organized to foreign destinations for agencies.

In response to the request of the agencies, The Agency Support unit was established to solve the passenger related PNR, ticketing and flight issues faster.

Free reservation system training and certification services were provided to agency employees for the training requests of the agencies.

In response to the request of agencies for enhanced rights to protect customers against trade fair cancellation cases, additional rights have been defined.

Agencies have requested the ability to apply similar discounts that the Incorporation provide for students, teachers, disabled passengers. This demand was taken positively, and it was ensured that the discounts could also be applied through the agency channel.

Domestic agencies' requests for a practice to increase their competitiveness against Online Travel Agencies (OTA) operating on a global scale were responded during this period. Accordingly, the competitiveness of agencies was increased by reducing the incentive rates applied to Global OTAs for flights departing from Türkiye.

Ticketing service fees were increased in line with the requests of agencies.

SHAREHOLDERS
AND INVESTORS

Annual Reports (Annual), Sustainability Reports (Annual), General Assembly Meeting (Annual), Financial Reports (Quarterly), Investor Conferences and Roadshows (Continuous), E-mail Messages (Continuous), Phone Calls (Continuous), Corporate Website (Continuous), Face-to-face or Online Meetings (On Request), KAP/Material Disclosures (Instant)

In 2021, the Incorporation has attended 8 investor conferences and roadshows, held 80 teleconferences and over 100 individual and corporate investor meetings. Four investor conferences have been organized over the results of the financial statements. In these meetings, information requests regarding company practices, financial performance information, pandemic and post-pandemic practices, and future goals were responded.



GRI-102-42 • GRI-102-43 • GRI-102-44

STAKEHOLDER GROUPS

COMMUNICATION METHODS

FREQUENTLY ASKED QUESTIONS AND RESPONSES

**BANKS AND FINANCIAL INSTITUTIONS**

Annual Reports (Annual), Sustainability Reports (Annual), Financial Reports (Quarterly), E-mail Messages (Continuous), Phone Calls (Continuous), Corporate Website (Continuous), Face-to-face or Online Meetings (On Request), Financing Tender and Contracts (On Request)

The information requests of banks and financial institutions mainly focus on the financial and operational status of the Incorporation, its projections for the future, the implementation of measures during and after the pandemic, as well as the financial transactions they carry out. These requests are responded primarily through the Incorporation's Investor Relations website, meetings and information sharing are held for information that are not disclosed on the website.

**INDIVIDUAL CUSTOMERS**

Annual Reports (Annual), Sustainability Reports (Annual), Social Media (Continuous), Corporate Website (Continuous), Customer and Market Research (Continuous), Customer Visits (Weekly), E-Mail Notifications and Phone Calls (Continuous), Mobile Application (Continuous), Loyalty Program (Continuous), Call Center (Continuous), Meetings and Fairs (Continuous), In-flight Entertainment System-IFE (Continuous), Complaint and Suggestion Forms (Continuous), Commercials and Promotional Films (Continuous)

Individual customers can convey their requests, suggestions and complaints to the relevant units on a wide range of issues, particularly flight planning, sales and ticketing issues, through various channels, primarily the call center. Relevant units respond to customer notifications as soon as possible.

**CORPORATE CUSTOMERS**

Annual Reports (Annual), Sustainability Reports (Annual), Social Media (Continuous), Corporate Website (Continuous), Customer and Market Research (Continuous), E-Mail Notifications (Continuous), Mobile Applications (Continuous), Customer Portals and Digital Integration Applications (Continuous), Corporate Loyalty Program (Continuous), Call Center (Continuous), Complaint and Suggestion Forms (Continuous), Commercials and Promotional Films (Continuous), Meetings (Continuous), Videoconference and Phone Calls (On Request), Fairs (Annual)

In parallel with the increase in online trade practices, the demands for air cargo transportation have also increased. Accordingly, various digital service demands of cargo customers are met by developing these applications or by digitalizing existing processes.

Information requests of corporate customers regarding environmental impacts of flight operations, carbon footprint, or corporate policies such as human rights, employee rights, business ethics, passenger rights, health, security and data security are met through the corporate website.

During the reporting period, a digital corporate card infrastructure has been developed to respond the demands of corporate customers, and the digitalization of loyalty cards began.

**SUPPLIERS AND CONTRACTORS**

Annual Reports (Annual), Sustainability Reports (Annual), Social Media (Continuous), Corporate Website (Continuous), E-mail Notifications (Continuous), Purchase Agreements (Continuous), Meetings (Continuous), Videoconference and Phone Calls (On Request), Fairs (Annual)

Due to the supply chain challenges experienced during the pandemic period, financial support requests have been received from the suppliers. In line with the researches, support was provided to the suppliers in the product items where the need for support was confirmed.

**INDUSTRIAL ASSOCIATIONS**

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-mail Notifications (Continuous), Meetings (Regularly), Working Groups and Joint Projects (Continuous), Videoconference and Phone Calls (On Request)

**BUSINESS PARTNERS**

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-mail Notifications (Continuous), Meetings (Regularly), Joint Projects (Continuous), Videoconference and Phone Calls (Monthly)

Studies are being conducted to deliver faster employment processes and to contribute to the goals and expectations of the units.

STAKEHOLDER GROUPS

COMMUNICATION METHODS

FREQUENTLY ASKED QUESTIONS AND RESPONSES



INTERNATIONAL ORGANIZATIONS AND REGULATORS

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-Mail Notifications (Continuous), Audits (Annual), Presentations, Reports and Publications (Continuous), Events and Summits (Regularly), Videoconference and Phone Calls (On Request)

Participation in the activities of international organizations is ensured by taking an active role in their administrative boards and the knowledge acquired is transferred to the Incorporation for increasing efficiency and standardization. In accordance with the pandemic conditions, the needs to ensure the continuity of air transportation by facilitating the operations without compromising the flight safety were responded in a coordinated manner.



TRADE UNIONS

Annual Reports (Annual), Sustainability Reports (Annual), Collective Bargaining Agreement (Periodically), Corporate Website (Continuous), Corporate Policies (Continuous), Meetings (Daily), Working Groups (Continuous), E-Mail Notifications and Phone Calls (Continuous)

Healthy communication was maintained throughout the reporting period. Various activities were carried out in line with the demands for improving the social and economic welfare of the employees.



UNIVERSITIES AND RESEARCH INSTITUTIONS

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-Mail Notifications (Continuous), Phone Calls (Continuous), Education Programs (Continuous), Videoconference and Meetings (Monthly)

During the reporting period, training program and graduate program collaboration requests of several universities were responded within the bounds of responsibility. Internship and employment requests were also responded positively, as long as it was deemed appropriate upon evaluations.



MEDIA

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-Mail Notifications, Phone Calls and Meetings (On Request), Press Releases, Interviews and Announcements (Continuous)

Social media contents were produced in line with the changes in travel habits and consumer expectations after the pandemic; and the information request of the media regarding the Incorporation have been responded.



NON-GOVERNMENTAL ORGANIZATIONS

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), Meetings (On Request)

During the reporting period the most common demand received from non-governmental organizations was transportation support for their fieldwork. The Incorporation established project basis collaborations with non-governmental organizations that shares similar values and goals and provides transportation support within its means.



LOCAL ADMINISTRATIONS

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), Meetings (On Request)

During the reporting period, the demands of local administrations to eliminate the problems experienced in the transition to the Zero Waste system were met with the projects carried out in accordance with the regulations.



INDEPENDENT AUDITING AND RATING AGENCIES

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), E-mails and Phone Calls (On Request), Videoconference and Meetings (On Request), Audits (Semi-Annual/Annual)

During the year, processes of the Incorporation were audited according to financial and operational parameters, and certification studies were carried out in accordance with the relevant standards. Information and document requests from auditing and rating agencies regarding these studies were responded to in a timely manner.



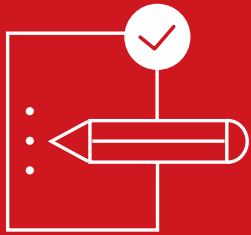
SOCIETY

Annual Reports (Annual), Sustainability Reports (Annual), Corporate Website (Continuous), Meeting (On Request), Social Responsibility Projects (Continuous)

Within the scope of our wide flight destination network, the most common expectation conveyed to the Incorporation is to support training-oriented studies conducted at flight destinations. Transportation support is provided to this kind of projects within limits of the strategies and means of the Incorporations.



Corporate Memberships



Turkish Airlines develops collaborations, participates in international organizations and initiatives, and plays an active role in setting industry standards in order to develop sectoral activities and achieve common goals in terms of sustainability priorities.

GRI-102-11 • GRI-102-12 • GRI-102-13

Membership Organizations and Initiatives	Level of Engagement
AACO - The Arab Air Carriers' Organization	Partner Membership
AACO DTF - AACO Digital Transformation Task Force	Member
AACO EPG - AACO Environmental Policy Group	Member
AACO AWG - AACO Aeropolitical Watch Group	Member
AACO ASAG - AACO Aviation Security Advisory Group	Member
AACO SAFTF - AACO Sustainable Aviation Fuel Task Force	Member
AIRE - Airlines International Representation in Europe	Board Membership
AIRE ASTF - AIRE Slots Task Force	Member
AIRE STF - AIRE Sustainability Task Force	Member
AIRE CRTF - AIRE COVID-19 Recovery Task Force	Member
ALTA- Latin American & Caribbean Air Transport Association	Partner Membership
IATA - International Air Transport Association	Board Membership
IATA CAC - IATA Cargo Advisory Council	Member
IATA DTAC - IATA Digital Transformation Advisory Council	Member
IATA IAAC - IATA Industry Affairs Advisory Council	Member
IATA LAC - IATA Legal Advisory Council	Member
IATA IOSA Maintenance Task Force	Member
IATA SEAC EDWG - IATA Sustainability Environmental Advisory Council, Environmental Data Working Group	Member
IATA SEAC SUPWG - IATA Sustainability Environmental Advisory Council, Single-Use Plastics Working Group	Member

Membership Organizations and Initiatives	Level of Engagement
Star Alliance	Full Member & Committee Memberships
Star Alliance Chief Executive Board (CEB)	Member
Star Alliance Alliance Management Board (AMB)	Member
Star Alliance Membership Liaison and Quality Committee (MEMCO)	Member
Star Alliance Customer Experience Committee (CUSCO)	Member
Star Alliance Loyalty Committee (LOYCO)	Member
Star Alliance IT Committee (ITCO)	Member
Star Alliance Legal Committee	Member
Star Alliance Emergency Committee	Member
Star Alliance Safety Committee	Member
Star Alliance Sustainability Committee	Member
Star Alliance Sustainability Strategy Team	Member
Star Alliance Loyalty Strategy Team	Member
Star Alliance IT Strategy Team	Member
TIACA - The International Air Cargo Association	Board Membership
TIACA SWG - The International Air Cargo Association, Sustainability Working Group	Member
TSHA - Turkish Civil Aviation Academy	Instructor Support
TÜYİD - Turkish Investor Relations Society	Member
TÜYİD Sustainability Working Group	Member
TÜYİD Emission Management Working Sub-Group	Sub-Working Group Presidency



RESPONDING TO CHANGING CUSTOMER EXPECTATIONS

Aiming to keep customer satisfaction at the highest level since its establishment, Turkish Airlines collects customer expectations and demands through many communication channels and continuously improves its activities, products and services in this direction.

In this context, one of the channels we use to determine our passengers' needs more accurately and to produce better solutions is the research conducted through the In-flight Entertainment System (IFE). The results of the research are analyzed monthly, and the analysis outputs are shared with the Customer Experience Executive Committee and with the relevant unit managers of the Incorporation through the Voice of Customer Report.

The aviation industry is a field of activity whose dynamics are constantly renewed in line with customer expectations and behaviors. Turkish Airlines aims to respond to customer expectations by rapidly adapting to changing customer behavior changes. In addition to in-house applications, channels that reflect the views, values and habits of large audiences, such as social media, are followed in order to evaluate customer behavior and expectation changes.

The most important development that changed customer behavior during the reporting period was the social distance

and hygiene needs brought by the pandemic. In this context, hygiene products that passengers may need were provided, disinfection of customer contact points was carried out and social distance rules were followed with diligence during the pandemic period. On the other hand, operations that require physical contact are rapidly being digitalized due to the increasing importance of digital channels. Online trade, which is rapidly being developed on a global scale, has increased the need for digital business processes that can be carried out and monitored remotely in logistics processes. In this context, numerous digital applications have been implemented to facilitate the operations of cargo transportation customers.

The need for Wifi connection during flight has increased due to the growing importance of internet connection in our daily lives in recent years. Efforts are being held to extend internet connection application to narrow-body aircrafts which was already started on wide-body aircraft to respond to this need. On the other hand, personal space requirements in the cabin are being catered with new seat design implementations.

The rapid increase in awareness to environmental problems, especially the climate change problem, creates differences in the expectations and preferences of individual and corporate customers. Passengers, especially corporate customers, attach importance to the implementation of various projects

Business Class Compensation Card

Passenger satisfaction is prioritized in the design of service processes and applications. complications experienced by passengers during their flights are substantially resolved with the proactive and satisfaction-oriented approach of the cabin crew. However, it may not be possible to produce instant solutions to the problems experienced in cabin, which is an operation with extremely dynamic and physical limitations. To this end, various applications are developed in order to compensate for the problems and disruptions experienced by passengers and to ensure customer satisfaction.

In this vein, Business Compensation Card was introduced in order to strengthen the satisfaction of Business Class passengers in 2021. With this application, passengers whose dissatisfaction cannot be resolved despite the efforts of the cabin crew are given a physical compensation card stating that they will be contacted by the Customer Relations Management. Passengers who are given cards are returned within 24 hours and compensation applications are offered. We aim to implement a similar application for the economy Class in the coming periods.

in order to reduce the climate impacts of their flights and to compensate the effects that are arised from the flight. Turkish Airlines also develops practices to reduce its impact on the environment in several business processes, from fleet preferences to fuel applications, from in flight processes to catering. Turkish Airlines also develops practices in many processes to reduce its impact on the climate and the environment, from fleet preferences to fuel applications, from in-flight processes to catering.





Responsible
Company



Combating the Climate Change

The climate change, which is seen as one of the top global challenges today, takes an important place in the agenda of the aviation industry. According to the research carried out by the United Nations Intergovernmental Panel on Climate Change (IPCC), the aviation industry produces approximately 2% of the anthropogenic greenhouse gas emissions that cause global warming. As the effects of the pandemic period on the sector diminish, this rate may increase in line with the increasing air traffic. On the other hand, according to the IPCC findings, the aviation sector is among the sectors that are difficult to decarbonize due to its own dynamics. This situation imposes greater responsibilities on members of the industry in the climate action. In this context, air transport was the first sector to take action globally and set comprehensive targets to reduce greenhouse gas emissions.

Turkish Airlines, on the one hand, responds to the increasing need for air transportation with its unique flight network, on the other hand, bears the responsibility of leaving a viable world to future generations. Combating climate change, which is one of the main priorities shaping sustainability activities, is also considered as a strategic issue

that is integrated into decision and implementation mechanisms for business processes.

Turkish Airlines' efforts on the climate action base on the practices highlighted by both the IPCC and sectoral initiatives, such as maintaining an efficient energy and emission management throughout the activities of the Incorporation, sustainable biofuel studies, fleet modernization and resource efficiency studies. In this regard, the Incorporation adopts the targets set by the International Air Transport Association (IATA) and takes decisive steps towards eliminating the climate change impacts, primarily reducing greenhouse gas emissions that result from its activities.

While the responsibility for Turkish Airlines' impacts on the economy, environment and society rests with the Board of Directors and the Executive Committee, a Sustainability Committee was established in 2021, the members of which are Turkish Airlines senior executives. Even though the issues related to the climate action are handled by the Sustainability Committee, it is the responsibility of the Corporate Sustainability Management to monitor and report the activities carried out.

Expert units formed within the framework of the relevant performance area are responsible for the planning and implementation of climate-friendly activities. For example, studies within the scope of aviation fuel efficiency are carried out by the Operational Fuel Management, sustainable aviation fuel studies are carried out by the Corporate Sustainability Management and the Fuel Management, while energy efficiency studies at the facilities are carried out by the Social and Administrative Affairs Directorate. While all these business units play a role in the management of greenhouse gas and other pollutant emissions, the Corporate Sustainability Management Department monitors and reports the practices within this scope.



[▶ You can watch our World Environment Day video by clicking the link.](#)



Management of Climate Change Risks

The aviation industry requires operation in extremely dynamic working conditions. An important part of these conditions is shaped within the framework of developments in the external environment and stakeholder expectations, both physically and socially. For this reason, Turkish Airlines considers climate change as a phenomenon that can have a significant impact on the aviation industry, both financially and strategically, and handles it both in general terms and in the context of its sub-components such as energy and greenhouse gas emissions within its corporate risk management model. The dimensions, such as energy consumption, fuel efficiency, renewable and alternative energy sources, are evaluated under the energy title in corporate risk and opportunity evaluation studies, while greenhouse gases and other emissions are evaluated under the environmental title.

The aviation industry produces about 2% of the world's anthropogenic greenhouse gas emissions. According

to the current projections of IATA, it is estimated that the demand for air passenger travel may exceed 10 billion in 2050. According to this scenario, it is predicted that carbon emissions from the aviation industry will reach 21.2 gigatons of CO₂e between 2021-2050. In this direction, IATA aims to bring the industry to a net zero emission level by 2050, in line with the 1.5°C target of the Paris Agreement, by highlighting sustainable aviation fuel (SAF), new aircraft technologies, the use of electricity and hydrogen energy,

carbon offsetting and carbon capture practices. Turkish Airlines also directs its climate action efforts by taking these projections into account.

When the risks and opportunities of climate change are evaluated, fuel efficiency comes to the fore both in terms of reducing the climate impact through decreasing emissions and the economic leverage effect created by the opportunities that arise as a result of the actions taken. For instance, while Turkish Airlines adds new aircraft to its

fleet, it prefers models with high fuel efficiency and low emission levels and plans to remove aircrafts that have high fuel consumption and carbon emissions from the fleet. In addition, applications to increase fuel efficiency at the operational level continue to be developed. The most important economic leverage of these practices is that high efficiency models allow significant savings in fuel, maintenance, repair and operating costs. On the other hand, the fact that new generation aircrafts meet passenger expectations in terms of their interior designs and features also serves to increase customer satisfaction and loyalty.

Extreme weather conditions and weather changes due to the increasing effects of climate change pose various risks on flight operations and cargo transportation activities. Extreme weather conditions may cause damage to aircraft and equipment and may cause delays in take-offs and landings. This will indirectly lead to more fuel use and therefore an increase in carbon emissions. In conditions of cold weather and precipitation, airplanes need to be washed with alcohol compounds to ensure the flight safety of the fleet, but extremely hot weather also poses some risks. In addition to deformations on the runway surface at high temperatures, flight cancellations and deviations in plans may occur. This may lead to extra fuel consumption and loss of income.



¹<https://www.iata.org/en/programs/environment/flynetzero/>

²<https://www.iata.org/en/iata-repository/pressroom/fact-sheets/fact-sheet---iata-net-zero-resolution/>





ENERGY AND EMISSION MANAGEMENT

Due to the energy-intensive character of aviation activities, it is extremely important for Turkish Airlines to establish an effective energy management and to manage the environmental impacts due to the greenhouse gas emissions it creates and its financial consequences.

While aviation fuels constitute the largest share in energy consumption, energy consumption other than aviation fuel also reaches a significant level due to the size of operations. For this reason, various units of expertise and coordination and planning bodies between units have been established to effectively manage different elements of aviation fuel consumption and other energy consumption processes within the organizational structure of Turkish Airlines.

The Fuel Management and the Operational Fuel Management conduct various processes for the supply, management and consumption efficiency of aviation fuels. In addition, since the processes managed by different business units directly affect aviation fuel consumption, a Fuel Savings Committee was established with the participation of Flight Operations, Finance, Marketing and Sales, Flight Planning and Dispatch, Operational Fuel Management, Engineering and Maintenance units. On the other hand, energy consumption processes other than aviation fuel is carried out by the responsible units under the Ground Operations Directorate, Social and Administrative Affairs Directorate,

Catering and In-flight Products Directorate, Cargo Operations Directorate, Technical Directorate, Infrastructure and Operations Directorate and Human Resources Directorate.

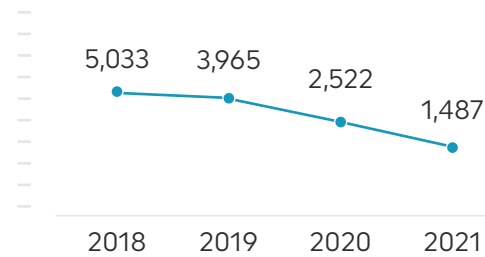
While the units responsible for energy management also work to reduce greenhouse gas emissions arising from this consumption, the monitoring, calculation, reporting and verification of greenhouse gases by independent verification bodies are carried out under the coordination of the Corporate Sustainability Management.

Our Incorporation's approach to the management of energy and greenhouse gases is stated in the Turkish Airlines Energy Policy, which was published for the first time in 2021, and the Environmental Policy, Sustainability Policy that has been in effect since the past years. In addition, institutional documents such as Fuel Saving Committee Procedure, Fuel Saving Implementations Monitoring and Control Procedure, Greenhouse Gas Information Management Procedure, legal regulations such as the Regulation on Increasing Efficiency in the Use of Energy Resources and Energy, Energy Performance Regulation in Buildings, and Energy Efficiency Law are taken as reference in shaping these practices. While the ISO 14064 Standard is followed in the calculation of greenhouse gases, efforts are underway to implement the ISO 50001 Energy Management System throughout the Company in the coming period in order to develop energy management systems.

Fuel consumption and greenhouse gas emissions are also subject to internal control and independent audit processes. In this context, greenhouse gas emissions originating from fuel consumption, Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) implemented by the International Civil Aviation Organization (ICAO), European Union Emissions Trading System (EU-ETS) and the UK Emissions Trading System (UK-ETS) and verified by audits carried out by authorized third-party independent organizations. The amount of fuel savings, fuel efficiency values, and greenhouse gas emission calculations are periodically reported to the senior management.

In addition to these studies, training activities are carried out to increase the awareness level of Turkish Airlines employees about greenhouse gas emissions. In this context, 1,487 employees participated in training activities in 2021.

Number of GHG Awareness Training Participants



Training activities are carried out to increase the awareness level of about greenhouse gas emissions



1,487

employees participated in training activities in 2021.



Climate Action Goals

2021 Goal	Unit	2021 Performance	Progress	2022 Goal
Offset of all emissions under EU ETS	Ton CO ₂	10,838	✓	Offset of all emissions in the scope of the ETS
Providing greenhouse gas awareness training to 1,200 employees	Number	1,487	✓	Providing greenhouse gas awareness training to 1,800 employees
5% reduction of kg/ATK compared to 2016 by 2025	kg/ATK	16.68	✓	5% reduction of kg/ATK compared to 2016 by 2025
25,000 tons of fuel savings	Ton	37,082	✓	45,000 tons of fuel savings
Prevention of 78,750 tons of CO ₂ emissions	Ton CO ₂	116,808	✓	Prevention of 141.750 tons of CO ₂ emissions
Monitoring and calculation of scope 1 and scope 2 emissions	-	-	✓	Monitoring and calculation of category 1,2,3,4,5,6 emissions
Verification of greenhouse gas emissions in 2020	-	-	✓	Verification of greenhouse gas emissions in 2021
Responding to the Carbon Disclosure Project (CDP) Climate Change Program	-	-	✓	Responding to the Carbon Disclosure Project (CDP) Climate Change Program
Monitoring our emissions from our relevant flights within the scope of CORSIA and verifying the 2020 emission report and submitting it to DGCA	-	-	✓	Monitoring our emissions from our relevant flights within the scope of CORSIA and verifying the 2021 emission report and submitting it to DGCA
Making microalgae-based sustainable bio-jet fuel pilot applications	-	-	✓	Initiation of microalgae based sustainable biofuel in 2022



Energy Policy

Turkish Airlines Inc. adopts the principles of using energy with maximum efficiency, reducing the use of natural resources and sustainable development. In this context, Turkish Airlines declares its Energy Policy to bring together its employees, customers, suppliers, subcontractors, affiliates, all business partners, and shareholders for the same purpose.

COMPLYING WITH LEGAL LEGISLATION AND CONDITIONS

Complies with national and international legal regulations and other conditions related to energy use, consumption and efficiency, and carries out its activities by providing all the necessary information and resources for an energy management system aiming at continuous improvement in line with our goals and targets.

MANAGING RESOURCES

It provides the human, technology, infrastructure, finance, etc. resources required for Energy Efficiency and reduction of the use of Natural Resources, and gives priority to energy efficiency in the investments and operations planned for the future.

UP-TO-DATE WITH TECHNOLOGY

It monitors efficient technologies in all processes and considers energy efficient products, services and designs that contribute to the improvement of energy performance as a priority criterion in purchasing processes.

CONTINUOUS DEVELOPMENT

It aims to continuously improve our energy performance and energy management system.

PERFORMANCE MONITORING

It monitors its goals and targets determined in accordance with its policy with "Energy Performance Indicators" and continuously reviews its performance.

LEAVING A LIVEABLE WORLD TO FUTURE GENERATIONS

It carries out projects that increase energy efficiency in order to reduce greenhouse gas emissions arising from its activities, and aims to increase the use of renewable energy sources.

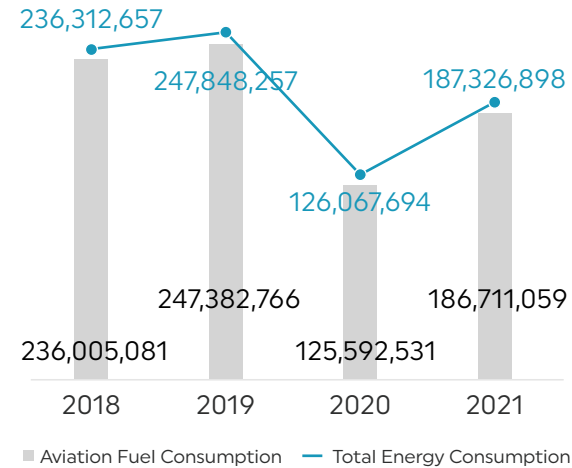
DEVELOPING WITH ITS STAKEHOLDERS

It works to increase the awareness of its employees on energy efficiency by establishing an effective communication with all its stakeholders.

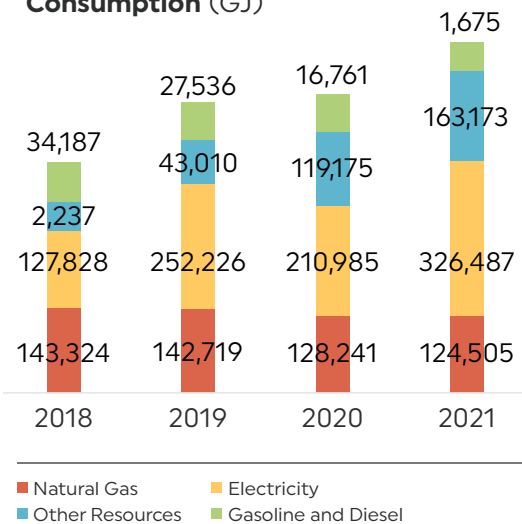


Energy Consumption and Greenhouse Gas Emissions

Aviation Fuel Consumption (GJ)



Non-Aviation Fuel Energy Consumption (GJ)

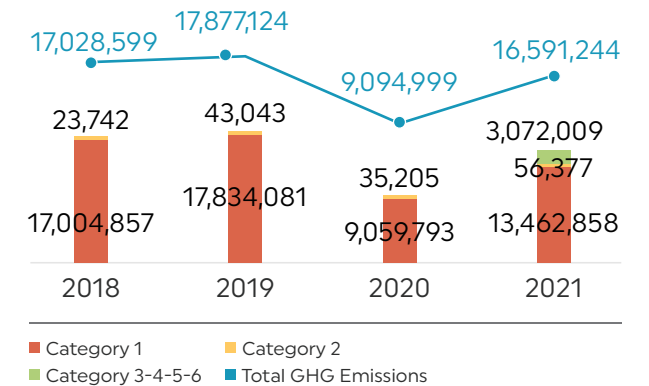


	2018	2019	2020	2021
Fuel Consumption (million tons)	5,3	5,6	2,9	4,2
Fuel Saving (ton)	29.608	55.492	22.760	37.082

In 2021, the effects of the pandemic have decreased significantly compared to the previous year. Accordingly, with the increasing number of flights, both aviation fuel consumption and other energy consumption increased. The share of aviation fuels in the total energy consumption of 187,327 TJ in 2021 is 99.7%.

In parallel, a total of 16.6 million tons of CO₂e greenhouse gas emissions were released during the year. The main reason for the increase compared to 2020 is the increase in the number of flights due to the decrease in the effects of the pandemic, but unlike the previous years, emissions other than category 1 and category 2 are also included in the calculations for 2021.

Greenhouse Gas Emissions (Ton CO₂e)



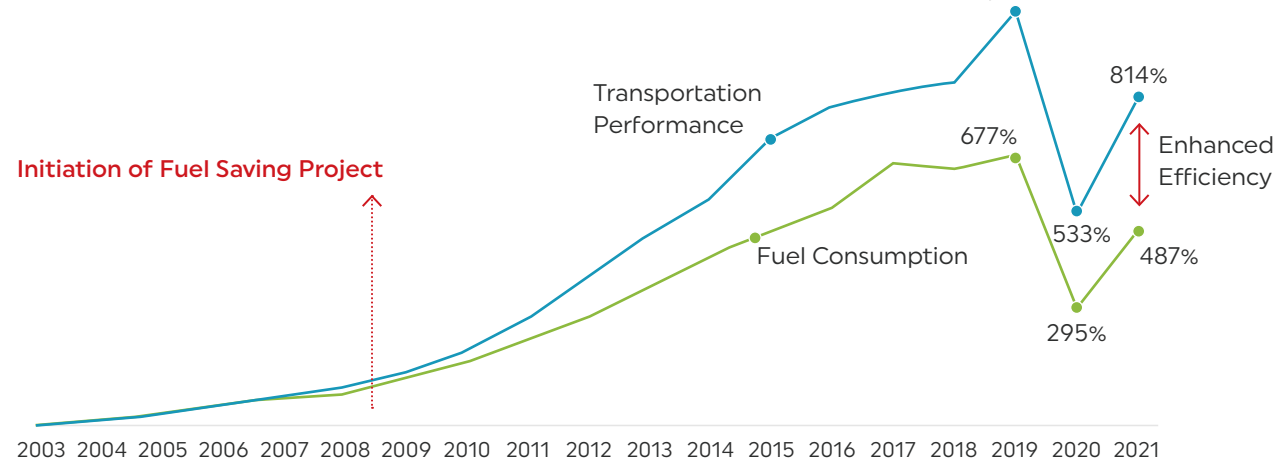
Fuel Efficiency

Aircraft fuel consumption is the main source of emissions in the aviation industry. For this reason, fuel saving efforts form the basis of Turkish Airlines' strategy to combat climate change and reduce greenhouse gas emissions. Thanks to each kg of fuel saved, 3.15 kg of greenhouse gas emissions can be prevented, while cost savings are achieved.

Turkish Airlines supports the short- and long-term targets set by the International Air Transport Association (IATA) on fuel efficiency. In this context, a comprehensive fuel saving policy has been established in our Incorporation, various fuel efficiency parameters have been continuously measured and monitored, and a Fuel Savings Committee responsible for reviewing the action plans has been established within the framework of the Fuel Efficiency Program with the participation of our CEO and relevant business units.



Fuel Efficiency Performance of Turkish Airlines (Last 18 years)



Turkish Airlines' transportation performance between 2003 and 2021 and its corresponding fuel consumption are shown in the chart above. If 2008 is accepted as the "referral/baseline", it is seen that the transport performance has increased by 814 percent as of 2021, while the corresponding fuel consumption has increased by 487 percent. In other words, thanks to the fuel efficiency projects successfully implemented since 2008, the amount of fuel spent for unit transportation activities is gradually decreasing. The increase in the difference between the transportation performance and fuel consumption in the chart clearly shows our increasing efficiency performance.

To increase fuel savings, various practices are implemented under 4 main headings. Within the scope of flight operations, practices such as the use of Auxiliary Power Unit, single engine taxi, low flap use at take-off and landing, minimum engine braking on landing, tracking of extra fuel demands, Noise Abatement Departure Procedure, idle reverse on landing, continuous descent approach. On the other hand, within the scope of technical maintenance practices, aircraft aerodynamics are followed. Reserve aerodrome selection, extra fuel planning follow-up, zero fuel weight difference follow-up, statistical APU fuel planning is carried out within the scope of flight planning applications. Reducing the weight of catering and domestic water and studies on center of gravity are carried out within the scope of ground operation applications.



In 2022, we plan to save

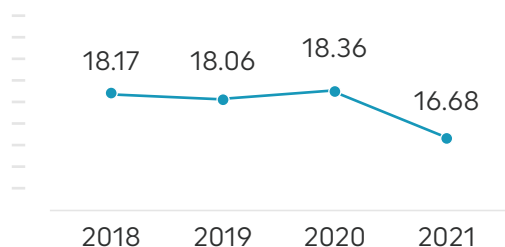


45,000

tons of fuel in total.



Fuel Efficiency (Kg/ATK)



Aircraft painted with the Base Coat & Clear Coat system are lighter, resulting in less fuel consumption and less carbon emissions. Engine washing processes, which contribute to fuel savings, are carried out at regular intervals in line with the manufacturer's recommendations. In addition, the transition of fire extinguishers in the toilets of all aircraft in the fleet to gas-filled fire extinguishers with halon alternatives was completed during the reporting period.

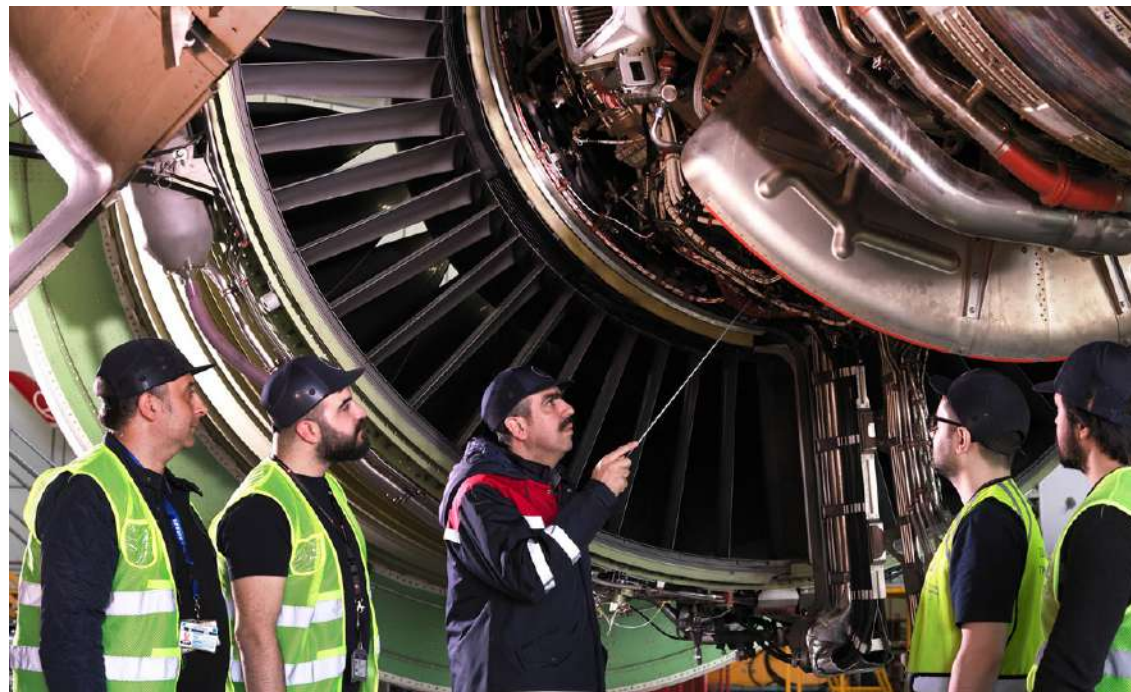
Our carbon footprint continues to decrease, thanks to various fuel saving projects that we successfully implement each year. In 2021, a total of 37,082 tons of aviation fuel, corresponding to 1,635,316.2 GJ of energy, was saved and greenhouse gas emissions were reduced by 116,808 tons of CO₂.

Turkish Airlines aims to reduce fuel consumption per ATK by 5% compared to 2016, by weight and range normalization until 2025. In 2022, we plan to save 45,000 tons of fuel in total.

Fuel Savings and Greenhouse Gas Emission Reduction Achieved by Basic Practices

	Fuel Savings (Ton)				GHG Emission Reduction (Ton CO ₂)			
	2018	2019	2020	2021	2018	2019	2020	2021
Reduced flap take-off/landing	8,283	9,257	5,192	7,513	26,091	29,160	16,355	23,666
Engine out taxi in	3,873	6,228	1,841	2,526	12,200	19,618	5,799	7,957
Idle reverse on landing	10,147	9,917	5,145	7,966	31,963	31,239	16,207	25,093
Continuous Descent Approach	5,550	4,291	2,631	3,744	17,483	13,517	8,288	11,794

* For each kilogram of fuel saved, 3.15 kg of carbon dioxide (CO₂) emission is prevented.



Energy Efficiency in Ground Operations

Although aviation fuels have the largest share in total energy consumption, significant energy consumption is also realized in ground operations. The largest part of this consumption is due to the use of electricity and natural gas.

In 2021, 3% electricity savings were achieved by replacing the lighting systems in the Headquarters building with led fixtures. With the introduction of economizers in building boilers, a 5% increase in efficiency was achieved and 15,000 m³ of natural gas was saved.

Thermal efficiency between 50-70% was achieved by using heat recovery air handling units in the ventilation systems of cargo and ECB buildings at Istanbul Airport, which were completed in 2021. Likewise, energy savings were achieved by preferring heat recovery ventilation systems in Yeşilköy Sales Office. We aim to provide at least 5% of the energy needs of the newly constructed buildings from renewable sources.

Carbon Offsetting Practices

Turkish Airlines has its emissions verified within the scope of mandatory and voluntary designs and projects to reduce the effects of greenhouse gas emissions arising from its operations. It carries out studies to balance the emissions that cannot be prevented by offsetting within various programs.

Within the scope of National and Regional trade systems, carbon emissions arising from flights are monitored and reported and offsetting practices are carried out. In addition to the European Union Emission Trading System (EU-ETS) and the Swiss Emission Trading System (CH-ETS), emissions reports were also prepared for the first time in 2021 within the scope of the UK Emission Trading Scheme (UK-ETS). In this context, emission credits corresponding to emissions verified by a third-party independent institution were purchased and surrendered to the authorities of the relevant Emission Trading Systems. In this context, a total of 13,968 tons of CO₂ was offset in 2021.

Turkish Airlines undertakes to voluntarily implement the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA Scheme), which has been implemented by the International Civil Aviation Organization (ICAO) as a global solution to reduce the impacts of

	2018	2019	2020	2021
Surrendered emission credits in scope of EU ETS (ton CO ₂)	10.617	13.240	13.835	10.838
Surrendered emission credits in scope of CH ETS (ton CO ₂)	-	0	48	0
Surrendered emission credits in scope of UK ETS (ton CO ₂)	-	-	-	3.130
Total Surrendered emission credits (ton CO ₂)	10.617	13.240	13.883	13.968
Reported number of passenger journeys	668	686	669	672

carbon emissions caused by flight operations, starting from the pilot phase. Accordingly, carbon emissions from flights in 2019, 2020 and 2021 have been verified by a third-party independent audit firm. In the coming years, we aim to neutralize the emissions that are above the base year emission values with the carbon credits to be obtained from the projects in accordance with the CORSIA Scheme.

A total of



13,968

tons of CO₂ was offset in 2021.



Turkish Airlines aims to make it easier for its passengers to reduce their carbon footprints resulting from their flights with the Voluntary Carbon Offset Project "CO2mission", which is planned to be implemented in 2022. With this project, passengers will be able to offset the emissions arising from their flights with Turkish Airlines or another airline with various offset projects to be presented via the mobile application and website and will be able to gift offsets to others if they wish. This project will also offset the emissions from the business travels of Turkish Airlines employees.

<https://turkishairlines.co2mission.com/en>



Sustainable Bio-fuels

As Turkish Airlines, we adopt the targets set by the International Air Transport Association (IATA), of which we are a member, to reduce aviation-related carbon emissions, and continue our efforts to use biofuel types called sustainable aviation fuel. With the use of sustainable aviation fuel, a reduction of up to 87% in greenhouse gas emissions

can be achieved compared to the same amount of traditional kerosene fuel, and a reduction in polluting gases is also achieved. In this context, we aim to start using bio-fuels in flights to various European destinations in 2022, and then to increase the destination and usage frequency. Turkish Airlines aims to be one of the few global companies that use the cleanest bio-fuel type, which is accepted by IATA in the near future. Turkish Airlines develops partnerships in this direction and carries out R&D studies.

Microalgae-Based Sustainable Bio-Jet Fuel Project (Micro-Jet), which we co-initiated with Boğaziçi University to develop a third generation, sustainable biofuel that does not contain plant seeds used as food, not competing with agricultural production, and can be produced without causing pollution in water, soil, and other natural resources, is also supported by TUBITAK. Within the scope of the project, it is aimed to make a pilot production of synthetic bio-

kerosene from microalgae using hydro-treated fatty acids and hydrothermal liquefaction methods. Prototyping studies of bio-jet fuel produced with "HEFA" technology using biomass have been completed.



After the engine trials are completed by Turkish Airlines Technical Inc., the bio-refinery aims to start production in the first months of 2022 and use biofuel in flights by the end of the year.






Environmental Management

Turkish Airlines aims to effectively manage and minimize the environmental impacts of its operations in line with the principles it has defined within the framework of its Environmental Policy. In this respect, environmental aspects and environmental impacts that may arise from all activities, products and services of the Incorporation are determined, and corrective actions are taken to eliminate or minimize these environmental impacts, followed by the implementation of methods for improvement.

 **The Environmental Policy**, which sets out the main principles of environmental management in the activities of the Incorporation, and the  **Environmental Aspects and Impacts List**, in which the environmental impacts that occur in the operational processes are defined and categorized, are published on the corporate website, open to the access of all stakeholders.

All environmental issues at Turkish Airlines are managed by the Chief Investment & Technology Office. The management of environmental impacts and the performance achieved are conveyed by the Chief Investment & Technology Office to the Management Review Meetings, which are held regularly with the participation of senior management.

 **ISO 14001 Environmental Management System**, which has been implemented since 2013, has been strengthened with a management model specific to the aviation industry in 2020, and the Incorporation participated in the IATA Environmental Assessment Management System Program- IEnvA, which has been specially designed by the International Air Transport Association (IATA) for airline companies. Having

successfully completed the audit carried out by an independent third-party organization authorized by IATA, Turkish Airlines became the first airline to be included in the program by directly obtaining a Stage 2 certificate, the highest-level certificate of the program.

All Incorporation activities are carried out in compliance with the corresponding legal regulations and the requirements of our voluntary commitments. In this context, no non-compliance with environmental legislation was experienced during the reporting period, and no legal or administrative sanctions were imposed on the Incorporation due to environmental impacts.

We aim to ensure the environmental management system of the Incorporation is compatible with the generally accepted good practices on a global scale, going beyond legal requirements, and to increase environmental performance by implementing good practices in the sector. For this purpose,

the necessary budget is allocated for the realization of the activities planned in line with the environmental management system. In 2021, the Incorporation allocated 8.4 million USD for environmental expenditures.

Environmental trainings are carried out for the employees of the Incorporation and contractor companies in order to promote environmental awareness and develop professional competencies throughout Turkish Airlines. Within the framework of this practice, a total of 1,946 person*hour of environmental training was given to 2,731 employees of the Incorporation and 264 person*hour of environmental training was provided to 496 contractor company employees in 2021.

Supplier environmental audits are carried out to ensure and improve the compliance of environmental management practices with specific standards in the supply chain. In this context, environmental audits were carried out in 53 supplier company operations in 2021.

In 2021, a total of



1,946

person*hour environmental training was provided to



2,731

Incorporation employees.

In 2021,



264

person*hour environmental training was given to



496

contractor employees.

In 2021, the Incorporation allocated USD



8.4

million for environmental expenditures.

Environmental Policy

ABIDING BY THE RULES

It complies with the aviation regulations along with the other legal and other requirements on the environmental issues that it is liable to comply with and undertakes to comply with voluntarily; it aims to extend beyond compliance with laws by the projects, applications, and initiatives it supports and plays an active role.

MINIMIZING ADVERSE ENVIRONMENTAL IMPACTS

It gives top priority to protection of environment while carrying out all its activities, products and services. It supports the fuel efficiency initiatives to decrease and eliminate the factors that may worsen the climate change. It monitors and reports the greenhouse emissions regularly, and shares the results with all its stakeholders. It takes the necessary measures and sets goals to decrease its emissions, and develops action plans to attain these goals, and monitors the status of such actions regularly. It develops projects based on Zero Waste principle and waste management hierarchy in the waste management practices. Considering the environmental impacts of its products and services, it supports the sustainable products and services, and gives priority to preferring such products and services whenever possible. It acts being aware of its impact on the local pollution. It takes measures against noise pollution, water emission, odor emission, and waste generation. It places importance on protection of the ecosystem and biological diversity

CONSIDERING PEOPLE AND THE ENVIRONMENT WHILE GROWING

It adopts the sustainable growth strategies to leave a better world to the next generations while extending all its activities, products, and services and planning its new investments. It targets to decrease its emissions and noise level with its next generation environment-friendly aircraft that increases fuel efficiency by modernizing its fleet. It places importance on protection of the natural ecosystems and biological diversity.

DEVELOPING ALONG WITH STAKEHOLDERS

It works to increase the environmental awareness of its own employees, provides trainings to its employees on environmental issues. It shares its good environmental practices with all its stakeholders; popularizes them; and encourages its stakeholders to participate through multidirectional communication.

MANAGING THE ENVIRONMENTAL ASPECTS

It detects the environmental aspects and environmental impacts of all its activities, products, and services, and develops action plans to prevent, decrease and, if possible, eliminate all negative environmental impacts at source throughout its life cycle. It applies improvement-oriented management systems and methods to keep significant environmental aspects under control.

DECREASING THE CONSUMPTION OF NATURAL RESOURCES

It uses the natural resources effectively and efficiently in line with the sustainability principle. It ensures the creation of the infrastructure required to increase the resource and energy efficiency and decrease their consumption, and supports the projects and applications developed to that end.

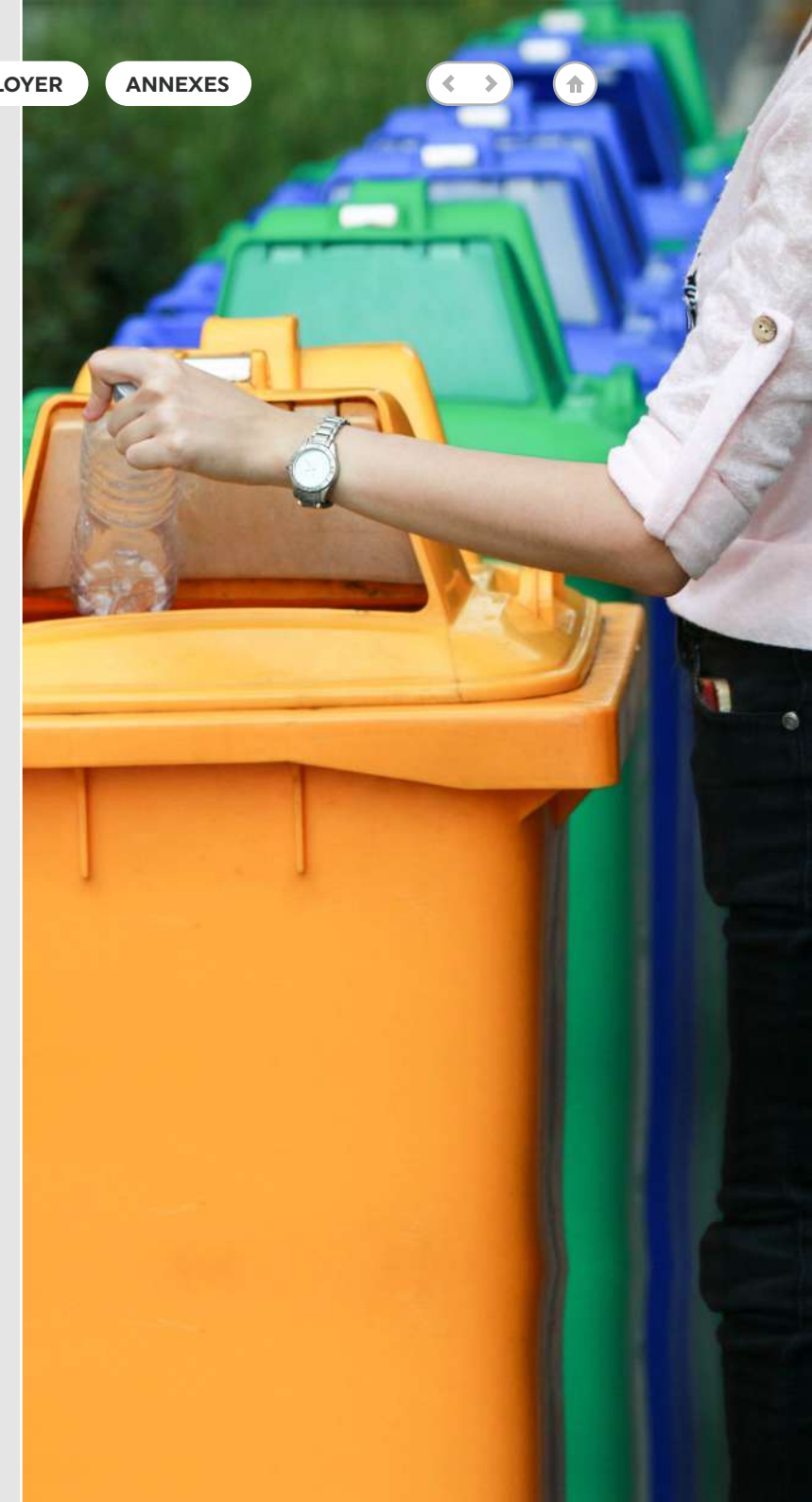
IMPROVING CONSISTENTLY

It measures its environmental performance regularly against the performance criteria it has determined, monitors its development, and shares it with all its related parties through the Sustainability Report it publishes annually. It evaluates the feedbacks coming from the national and international rating agencies, its employees from all levels of its organization, and all its related parties, considers every possible feedback, and takes actions to improve its Environmental Management System consistently. It reviews the Environmental Policy periodically, updates it when necessary, and shares it with its related parties.




Environmental Targets

2021 Target	Unit	2021 Performance	Progress	2022 Target
No non-compliance with environmental legislation	Unit	0	✓	No non-compliance with environmental legislation
Non-occurrence of any environmental accident, environmental emergency, or incident.	Unit	0	✓	Non-occurrence of any environmental accident, environmental emergency, or incident.
Ensuring the continuity of TS EN ISO 14001 Environmental Management System Certificate	-	-	✓	Ensuring the continuity of TS EN ISO 14001 Environmental Management System Certificate
Obtaining Stage 2 certification in the IEnvA Program	-	-	✓	Ensuring the continuity of Stage 2 certification in the IEnvA Program
2% reduction in water consumption per employee compared to the previous year	m ³ /Person	23.7	*The per capita water consumption target for 2021 could not be reached due to the change in the buildings included in the calculation in 2021 compared to 2020 and the different consumption characteristics.	5% reduction in water consumption per employee compared to the previous year
Providing environmental and waste management training to at least 3,000 employees	Person	3,227	✓	Providing environmental and waste management training to at least 3,800 employees
-	-	-	-	To participate in the UN Global Compact



RESOURCE EFFICIENCY

Turkish Airlines aims to use natural resources efficiently in line with its commitment to “think about people and the environment while growing up” in its Environmental Policy and declares its  **Energy Policy** in this direction. Consumption amounts of water, natural gas, electricity, and paper are monitored in accordance with the relevant policies, and efforts are carried out to optimize the use of resources.

Water Consumption

Since water is a limited natural resource and is used extensively in operations, Turkish Airlines carefully monitors water consumption and carries out studies to ensure efficient use.

There is an increase in water consumption per person in 2021 compared to previous years, and the reason for this increase is that the scope of consumption data has expanded. In line with the increasing scope, a total of 255,238 m³ water consumption was realized during the year.

We aim to reduce water consumption with the efficiency studies we carry out. In 2021, many applications have

been implemented to increase water efficiency in the buildings and landscape areas at Istanbul Airport. In this context, a project is underway to use LEED (Leadership in Energy and Environmental Design) approved nozzles that save up to 30% water in irrigation systems used in landscape areas, planned to be implemented in 2023. In addition, water consumption has been reduced from 30% to 50% in different buildings, thanks to the efficient water faucets used in buildings.

Wastewater generated because of water use is only discharged into wastewater channels. In this context, 237,418 m³ of wastewater generated in Turkish Airlines operations in 2021 was discharged into wastewater channels in compliance with legal regulations. Through the efficiency studies carried out, we aim to gradually reduce the amount of wastewater.

In this framework, a recycling system project that will ensure the reuse of 65% of the blowdown water of the cooling towers in the energy buildings has been implemented during the year. Thanks to the system to be implemented in 2023, our target is to reduce the make-up water requirement of the cooling towers by 16-17%, thus reducing the amount of wastewater.

Water Consumption per Person

(m³/person)



237,418

m³ of wastewater generated in Turkish Airlines operations in 2021 was discharged into wastewater channels



Reducing the Use of Chemicals

Turkish Airlines aims to control the chemicals used in its operations and to reduce their consumption within the scope of its strategies to reduce environmental impacts. The most prominent studies carried out in this regard are in the areas of reducing the use of anti-icing liquids and aircraft painting.

Icing that occurs in cold seasons is an important risk in terms of flight safety. To eliminate this risk, icing prevention or defrosting practices called "anti-icing/de-icing" are carried out. In this application, liquids with chemical contents are sprayed onto the aircraft surface and the deposits formed are purified. Although international authorities do not set a limit value for the amount of liquid to be used in the relevant directives, they prescribe the use of liquid "as needed" to prevent icing. For this reason, Turkish Airlines aims to determine the amount of liquid to be used in anti-icing/de-icing processes at an optimum level to ensure flight safety, but also to prevent the environmental impact of unnecessary chemical use.

Before the start of the icing season, implementation plans are discussed

in line with the latest findings on the subject in senior management meetings; and senior managers, cockpit teams and employees working at all stations where de-icing service receive digital and on-the-job trainings, the contents of which are constantly updated, to increase their technical knowledge and awareness. During the season, the application data is analyzed, and workshops are held with station officials and handling companies with high usage data, and discussions are held on the optimization of the liquid mixing ratios used and the most accurate liquid application methods.

Aircraft painting practices are also a process in which the use of chemicals occurs. The painting system followed by Turkish Airlines for the aircraft in the fleet requires less repainting. In this way, an aircraft is repainted 2 times instead of 3 times on average during its 20-year economic life. In this way, the use of chemicals is reduced by 33%. With the primary paint applied to metal and composite surfaces in the aircraft fuselage, chemicals containing less chromium and less harmful to the environment are used. Chemicals used for paint removal also do not contain chromium. On the other hand, PR1425CF and similar chrome-free liquid filler gaskets are used in window replacements.



Reducing Paper Consumption

Numerous applications are carried out to reduce the paper material used in various operations. In this context, the Mobile Boarding Pass application, which saves time and makes life easier for passengers, stands out in terms of paper savings. With this practice, printing of 3,083,459 boarding passes was prevented in 2021.

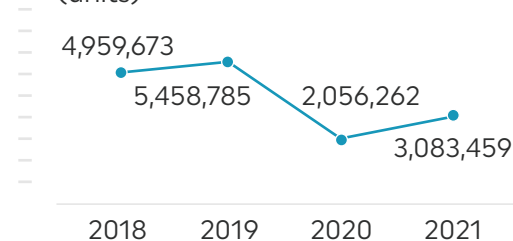
As a result of our efforts to keep up with the digitalizing world and to reduce our environmental impact, we have terminated the process of producing and sending physical Miles&Smiles cards. The Miles&Smiles digital card, where our customers can use all the advantages and features of the physical card, can be accessed through our mobile application. The use of 2.35 million ecological cards, 1.92 million ecological envelopes and 1.92 million ecological papers was prevented with the complete termination of Miles&Smiles shipments, which are produced using environmentally friendly materials that can dissolve in nature in a shorter time and can be recycled.

On the other hand, paper consumption is prevented to a large extent by digitally issuing and archiving many bulletins,

forms, announcements, and records, excluding the documents requested by the General Directorate of Civil Aviation and other country authorities, to be issued with wet-ink signatures. In addition, thousands of sheets of paper are prevented from being consumed every day by digitally editing control and administrative process documents via tablets with mobile applications for cabin crews.

In addition to these efforts, our passengers are provided with the opportunity to access over 7,000 newspapers and magazines digitally in more than 60 languages, with the PressReader application, resulting in significant paper savings. Details of the application can be accessed through our [website](#).

Mobile Boarding Pass Application
(units)



The complete termination of Miles&Smiles shipments the use of



2.35

million ecological cards,

was prevented.



1.92

million ecological envelopes



3

million boarding passes printing of was prevented.

In 2021, more than



Environmentally Friendly Material Preferences

We primarily aim to prevent the generation of waste and, if it cannot be prevented, to minimize it during the activities of the Incorporation. With all travel and toy sets being offered without any plastic packaging, millions of plastics are prevented from being used on our flights. In this context, the use of 17,935,026 plastic packages with a total weight of 13.3 tons was prevented in 2020 and 2021.

An important part of the efforts to reduce the environmental impact of the materials used in the operations is to replace the materials used with their low-environmental counterparts. While environmentally friendly options are preferred in the packaging of many materials used in the aircraft, the consumption of disposable packaging in our flights is also reduced.

In this context, as of 2017, instead of plastic toys, our child passengers are offered "Forest Stewardship Council (FSC)" certified toys produced only from trees grown for industrial purposes. The toy presentation, which was stopped in 2020 due to the pandemic, was resumed in 2021 and a total of 323,925 FSC-certified toy sets were given to our child passengers. When evaluated as of 2018, with the presentation of a total of 4,239,625 FSC-certified wooden toys, nature-friendly products were preferred instead of plastic alternatives.

	2018	2019	2020	2021
Forest Stewardship Council (FSC) Certified Toy Sets	2,268,000	1,647,700	0	323,925
Biodegradable and Compostable Headphone Packaging in accordance with TS EN 13432 Standard	37,698,863	37,790,212	9,872,042	16,722,548
TS EN 13432 Certified Biodegradable and Compostable Blanket Packaging	13,497,804	20,791,553	4,412,240	6,223,785
OEKO-TEX 100 Certified Passenger Blankets	1,509,204	2,181,610	572,215	1,144,145
Vegan Cosmetic Sets	-	-	-	63,471



Due to hygiene, headphones and blankets offered for the use of passengers in the cabin must be packaged. In 2017, instead of conventional plastic in the packaging of headphones and blankets, materials that comply with the "TS EN 13432" packaging-biodegradation and composting and recyclable packaging specifications standard were started to be used. With this practice, biodegradable and compostable packaging has been used instead of a total of 147,009,047 disposable plastic packages since 2018 and a total of 22,946,333 disposable plastic packages in 2021.

Biodegradable packaging and eco-friendly toy applications offered to passengers took part in the Travel Plus 2021 Amenities Initiatives competition and were awarded the "Gold" status under "Sustainable Packaging Initiative" and "Children Wellness Initiative" categories. The biodegradable packaging applications also received the "Best of Onboard Sustainability" award in the "2021 Onboard Hospitality Awards".

The products offered to passengers include OEKO-TEX 100 certified passenger blankets and vegan cosmetic sets, which are produced without the use of chemicals. In this context, 63,471 cosmetic sets offered to passengers in 2021 were produced with vegan ingredients, and 1,144,145 blankets with OEKO-TEX 100 certification.

As part of the strategy to reduce single-use plastics, plastic combs and shoehorns have been removed from the travel kits. In this way, the consumption of a total of 3.3 million plastic materials was prevented as of 2019.

Plastic combs and shoehorns have been removed from the travel kits in this way, the consumption of a total of



3,3

million plastic materials was prevented.

Cabin Modification Projects

In line with customer expectations, modification works are carried out in aircraft cabins at various periods. During these procedures, both the amount of material used and the weight of the aircraft are reduced by using lightweight components produced with new technology and design, which contribute to reducing our environmental impact. Among these applications, the modification of the passenger seats has an important place and a significant reduction is achieved in the material weights used in passenger seats.



Green Building Practices

Turkish Airlines follows green building certification practices to manage and minimize the environmental impacts caused by buildings. It is aimed for the buildings to be efficient in terms of environmental and economic performance from the design stage to their use, and to have high sustainability qualities in terms of the materials used in their production.

Buildings that differ in their environmental performance compared to conventional building production techniques are registered with green building certificates. In this context, 9 different buildings at Istanbul Airport have been registered with the simple LEED (Leadership in Energy and Environmental Design) v4 BD+C certificate by the U.S. Green Building Council, while the Turkish Airlines Domestic Lounge and Main Lounge buildings have been registered with the silver LEED v4 ID+C certificate. In addition, the application process for Platinum certification of the Operation Center and Crew Terminal (OC) Facility continues.

Raw materials to be used in building production are in line with green building certifications; energy use and efficiency are evaluated according to parameters such as material and chemical substance content, emissions to air-water and soil, and waste generation. In LEED-certified buildings, 20 different EPD (Environmental Product Declaration) certified products were selected from at least 5 different manufacturers for each project.



WASTE MANAGEMENT

Turkish Airlines follows the "Zero Waste" principle in its operations in line with its Environmental Policy. Waste hierarchy principles are adopted in waste management in line with the Waste Management Procedure and the Zero Waste Regulation. The main priority is to prevent waste generation, whereas in cases that waste cannot be prevented, practices are carried out to minimize the amount. The resulting wastes are brought back to the economy by recycling or recovery methods, and materials that cannot be recovered are disposed of

through licensed companies. Wastes generated during operations are regularly reported to the Ministry of Environment, Urbanization and Climate Change according to waste type and code, in accordance with the relevant regulations.

During the reporting period, a total of 1,608 tons of waste was generated in Istanbul and domestic locations. 1.449 tons of these wastes are in the category of non-hazardous waste, 53.5 tons are in the category of packaging waste, and 105 tons are in the category of hazardous waste. Since only 0.5 tons of the generated waste is in the category of non-recoverable

medical waste, it was disposed of through licensed companies.

Within the scope of our waste management practices, reuse practices are evaluated to reduce waste, and in this direction, energy and raw material savings are contributed. The earplugs we offer to our passengers are sterilized and reused after each use, and those that cannot be repaired are delivered to licensed recycling companies to recover iron, plastic, and copper raw materials. Another example for reuse practices is the repair and reuse of bags used to load materials onto aircraft. Textile products that cannot be reused are recycled and used as fibers in the industry. The wooden materials used for fixing the cargoes on the aircraft are converted into wooden transport pallets in the carpenter's workshop. Thus, some of the wooden pallets needed are produced from out-of-use wooden materials, reducing both the use of new materials and the amount of waste.

In addition to these efforts, inflight waste segregation practice is implemented at the airports where the technical possibilities are available and, on the routes, where the flight times are sufficient. We aim to expand the scope of this practice, which provides separation at the source, and feasibility studies in this direction are continuing.

As Turkish Airlines, besides the activities that enable us to move towards a circular economy in a wide range from in-flight product selection to our

recycling programs, training activities are carried out every year in order to increase the knowledge and awareness of our employees about the zero-waste principle. In this context, online waste management training was provided to 3,227 employees in 2021.

Disposal of Airframes

The disposal process of airframes is managed by one of our subsidiaries, Turkish Technic Inc. The scrap body obtained at the end of the dismantling is sold to the scrap company, provided that the following conditions are met.

- Risk analysis before cutting scrap at the airport
- Dangerous and non-hazardous substance documents
- Declaration of the competency certificates of the personnel obtained from the vocational qualification institutions
- Notification of mobile hazardous waste tracking when removing the scrap from the facility
- Declaration of the transportation license of the company that will transport the scrap waste and the disposal documents and contracts of the scrap company or the company that will handle the procedure

During disassembly, it is aimed to separate reusable or recyclable components and materials and bring them back to the economy.



Responsible Catering



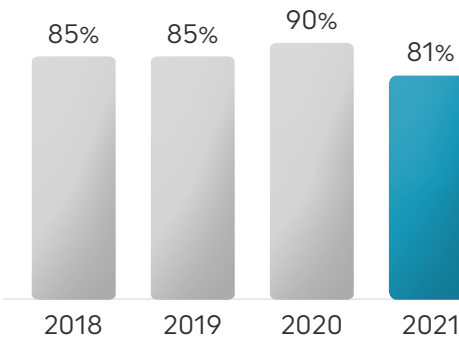
Since its foundation, the quality level achieved in Turkish Airlines in-flight catering constitutes a significant part of the Incorporation's increasing customer satisfaction and quality perception. Considering the size and complexity of operational efforts, there is no doubt that catering services should be considered as an operation in its own right. These operations are carried out through Turkish DO&CO, a Turkish Airlines partnership. A total of 29.8 million meals were served to passengers on Turkish Airlines flights in 2021. 25.4 million out of this was realized in international flights. The total weight of the meals offered is 18.1 million tons.

With the creative solutions of Turkish Airlines and Turkish DO&CO, in addition to offering quality and variety of catering services prepared in accordance with high-level health and hygiene rules and appealing to the taste of passengers, efforts are devotedly carried out to reduce the climate and environmental impacts arising from catering operations within the framework of the Sustainability Policy.

All meals are prepared in accordance with high hygiene standards under the control of expert food engineers in compliance with the ISO 22000 Food Safety Management System. The raw materials used in the preparation of



Domestic Supply Ratio in Catering (%)



A total of



29.8

million meals were served to passengers on Turkish Airlines flights in 2021

The total weight of the meals offered is



18.1

million tons.

the meals are supplied from ISO 22000 certified suppliers. Turkish Airlines understands that reaching certain quality standards in its supply chain and auditing suppliers for compliance with these standards is crucial to creating a positive brand image among the general public as well as passengers. To this end, Turkish Airlines conducts an on-site inspection program at its suppliers via services received from an expert and independent firm – SGS Supervise: Monitoring, Surveillance and Control Services – and Bureau Veritas firm on the basis of its corporate standards, policies and procedures.

By supplying food domestically, both local production is supported and the climate impacts arising from the raw material logistics processes are reduced. In this context, 81.2% of the food supply in 2021 was made from domestic suppliers.

Bearing in mind the health and well-being of our passengers, the meals served on board are always prepared using the freshest and highest quality ingredients. No additives are used in the product content. On the other hand, while planning the catering alternatives, attention is paid to the preferences of the passengers; a wide range of catering options are offered on international flights in line with the nutritional habits

and needs of passengers. In 2021, Turkish Airlines provided 305,127 individual meal services in line with the personal preferences of its passengers.

Another dimension of sustainable catering practices is to reduce the weight and environmental impact of the materials required for catering, and to separate and recycle the occurring wastes. In this context, efforts are being made to lighten catering supplies through innovative practices. In this way, carbon emissions are also reduced with fuel savings in both flight and logistics operations.

Along with these efforts, studies are also carried out for the recycling of wastes generated in the production, distribution and post-consumption processes of catering products. Packaging, oil and other organic wastes generated during the production and distribution process are separated and recycled through licensed companies. In-flight waste segregation practice, which was initiated with the aim of recycling the catering wastes generated on our flights as much as possible, was carried out on 68 destinations in 2018 and 124 destinations in 2019. This practice, which we took a break in 2020 due to the pandemic, was reinstituted in 2021 and continued to be carried out on a total of 73 destinations.



In 2021, Turkish Airlines provided



305,127

individual meal services in line with the personal preferences of its passengers.

Fleet Modernization

Established in 1933 with a fleet of five aircrafts, Turkish Airlines has rapidly expanded and diversified its fleet over time. The breakthrough in fleet modernization in the 2000s is of particular importance. The Turkish Airlines fleet, which consisted of 65 aircraft at the beginning of 2004, increased 5.7 times by the end of 2021. Turkish Airlines, the airline that flies to the most international destinations in the world before the pandemic, has a fleet of 370 aircraft in total, with 246 narrow body, 104 wide body and 20 cargo planes as of the end of 2021.

In line with its goal of being the youngest and most modern fleet in Europe, Turkish Airlines continues its fleet expansion and rejuvenation efforts full on. While conducting cost analyzes for aircraft purchase decisions, parameters such as increasing passenger traffic, changing customer expectations, passenger comfort and flight safety, as well as fuel savings provided by developing aircraft technologies and environmental impact

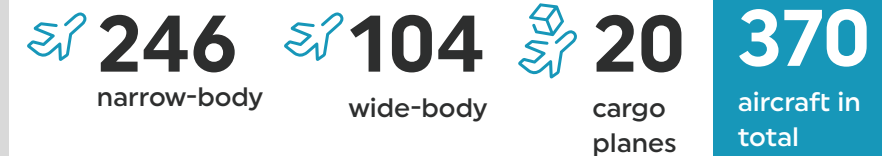


Noise Management

Turkish Airlines aims to reduce the acoustic effects of its operations in line with its Environmental Policy. For this purpose, the most effective method is fleet modernization. Having one of the youngest fleets in the world, with an average age of 8.5, also makes a significant contribution to reducing noise emissions. With the addition of current aircraft orders to the fleet, we aim to increase the noise reduction performance.

Every aircraft participating in the fleet must have noise certificates in compliance with ICAO requirements. Technical Directorate, Airworthiness and Reliability Management carries out the necessary studies for each aircraft to obtain a Noise Certificate in accordance with national and international aviation requirements and monitors its updates. With this certificate, which specifies the noise levels of the aircraft, the airports comply with the noise level limits for landing and take-off.

Turkish Airlines, as of the end of 2021;



reduction characteristics, especially greenhouse gas emissions, are kept in the foreground.

According to IPCC research, the aviation industry is an area of activity that has structural difficulties in decarbonizing. The implementation that promises the greatest improvement in reducing greenhouse gas emissions in aviation by both the IPCC and industry initiatives is the modernization of aircraft fleets due to the fuel efficiency it creates. Looking at the data provided by the aircraft manufacturers, it can be observed that the new generation narrow body aircraft saves 15% fuel per seat compared to the previous generation, while the new generation wide body aircraft saves 20-25%. In parallel with these values, greenhouse gas emissions resulting from flight operations are also reduced.

Turkish Airlines updates its fleet projections at the end of each year. In order to provide both cost advantage and fuel savings, the old aircrafts are removed from the fleet and new generation narrow and wide body aircraft continue to be added to the fleet. As of the reporting period, there are orders for 20 A350-900, 10 B787-9 and 55 A321NEO aircrafts from manufacturers. With the entry of these aircraft into the fleet, the age of the fleet will decrease while the fuel savings will increase.

As of 2021, 15% efficiency was achieved in fuel consumption with 3 A350-900, 6 A321 NEO, 8 B737 MAX 8 and 4 B737 MAX 9 new generation narrow and wide body aircrafts that joined the fleet. In this way, carbon emissions and noise levels have been reduced. With the more effective use of the new generation aircrafts that joined the fleet, the total fuel efficiency level increased and a savings of USD 150 million was achieved in fuel costs.

The A321 NEO and B737 MAX aircraft, which were ordered in 2013 and started to join the fleet in 2018, provided an average of 15% fuel savings compared to their equivalent aircraft. With the addition of all of these aircrafts in 2028, we aim to achieve significant savings in fuel consumption per seat in the narrow body passenger aircraft fleet. On the other hand, thanks to the advantages provided by the inclusion of new generation aircraft in the fleet, it will be possible to fly to various destinations non-stop and increase the frequency in 2022 and beyond.

In line with its growth targets in cargo operations, Turkish Airlines continued to operate the A330-200F and B777-200LRF aircraft it added to its fleet throughout 2021. In addition to the cargo planes added to its fleet from manufacturing companies, it continued its operations with wet-lease rented aircrafts in its fleet.





TURKISH AIRLINES



HOTEL DESK

TURKISH AIRLINES

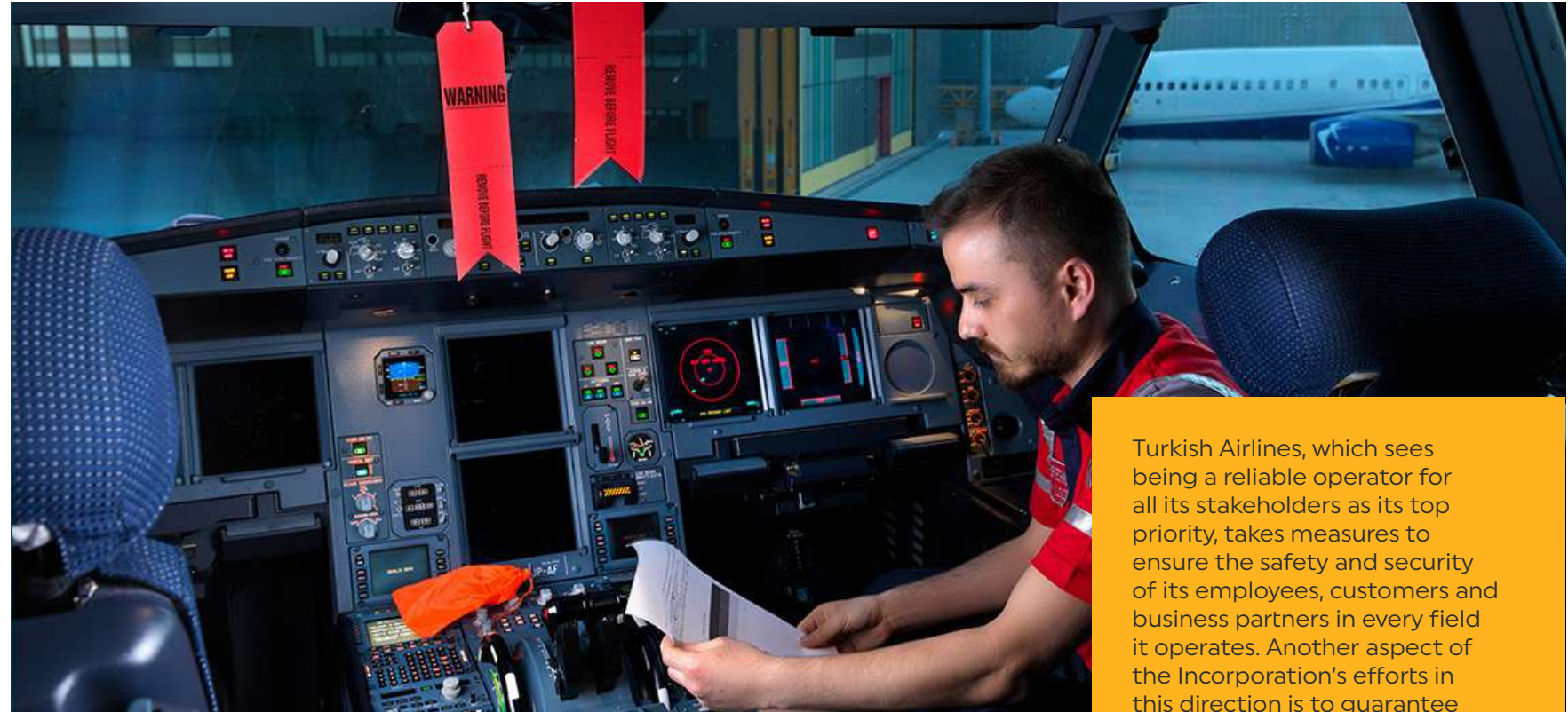
touristanbul

Reliable
Operator





Flight Safety and Security



Flight safety and flight security are closely-related two phenomena that consist of different business processes and are managed with a high synergy by teams having different expertise. While flight safety efforts focus on the operations carried out to identify all potential hazards and risks within the scope of flight operations and to keep the risks at an acceptable level, flight security covers operations and


measures aimed at protecting customers, employees and all relevant stakeholders, and ensuring the safety of facilities, aircraft and other assets.

Turkish Airlines always adopts the highest working standards in its operations. Flight safety and security is the basic operational norm and an absolute priority, which is at the foundation of all operations and cannot be ignored under any circumstances.

Turkish Airlines, which sees being a reliable operator for all its stakeholders as its top priority, takes measures to ensure the safety and security of its employees, customers and business partners in every field it operates. Another aspect of the Incorporation's efforts in this direction is to guarantee business continuity and ensure that operations are carried out uninterruptedly and without disruption. Innovation and R&D studies are carried out for process and service improvement to continuously develop a reliable operator identity. The main motivation of all these efforts is to provide a high-level travel experience by prioritizing service quality, safety, health and customer satisfaction.

FLIGHT SAFETY

Marked as one of the main elements taken into consideration in the creation of the strategic plan and objectives of the Incorporation, all operations that entail flight safety are carried out abiding by regulations of the International Civil Aviation Organization (ICAO), the European Aviation Safety Agency (EASA) and the Directorate General of Civil Aviation of the Ministry of Transport and Infrastructure, Republic of Türkiye (DGCA).

As an airline with the IOSA certificate of the International Air Transport Association (IATA) since 2006, Turkish Airlines  **Safety Policy** and Safety Management System has been established to ensure flight safety and continuously improve implementation and performance. The definition and implementation principles of all operations to be carried out within the framework of the Safety Management System are documented in the Safety Management Handbook.

Although the Safety Management System is managed by the Corporate Safety Department, it is structured to cover all levels of the organization and its interactions with the operational environment, beyond the traditional approach. In this context, a sharing of responsibility has been established, including the relevant managers from



all management levels, starting with the CEO. The Safety Review Board, Safety Action Group and Safety Representatives, established for flight safety management, come together at periodic meetings to review the effectiveness of the studies and the adequacy of the risk measures. With the activities of these bodies, an environment is created for employees and business partners to contribute to the development of the Safety Management System.

An information panel consisting of the performance indicators of each operational area has been established to present the work carried out and the performance achieved within the scope of flight safety to the members of the Board of Directors.

The main objective of Turkish Airlines in the field of flight safety is to be a leading and guiding airline company in the sector in terms of safety management and practices. In line with this objective, we aim to maintain and improve safety performance in line with the growth of the Incorporation in the short term, and to develop a real-time, data-based, proactive and predictive system approach by using up-to-date technological opportunities in the medium term.

SAFETY RISK MANAGEMENT

The main purpose of Safety Risk Management is to keep the risk level at an acceptable level by constantly evaluating the factors affecting the operational areas within the framework of the system approach. All methods and principles regarding the identification, evaluation and control of safety hazards and risks in flight operations have been determined by procedures. These procedures are detailed in the Safety Management System Manual.

Pilot reports, Safety Performance Indicators (SPI), safety-related meeting decisions, Incorporation surveys, maintenance technical reports, bulletins of foreign and national authorities, activities and board decisions of subsidiaries are examined and potential threats that may affect flight safety are identified. The level of risk is determined by calculating the probability of these threats and the severity they will create if they occur. Measures to keep the level of these risks at an acceptable level are defined and safety programs specific to flight, cabin, maintenance, catering, ground and cargo operations are created.

Fatigue Risks Management

Fatigue risks have an important place in flight safety risk management because of their acute and chronic impacts on cockpit and cabin crew. For this reason, Turkish Airlines measures, evaluates and prevents fatigue risks in line with the standards and legal requirements established by the National and International Civil Aviation Authorities.

Within the scope of the Fatigue Risk Management System, which is integrated with the Turkish Airlines Safety Management System, the processes detailed specifically for the cockpit and cabin crews, fleet and operation structure are supported by the bio-mathematical model created by international scientific research and operational experiences. It is aimed that the risks arising from fatigue can be noticed or predicted through processes that are carried out in a dynamic and real-time structure, starting with the creation of the monthly flight schedules of the flight crews and covering the day-to-day flight operations. Accordingly, training is provided to flight crews and employees of all relevant business units, and fatigue reports of flight crews are encouraged. Improvement efforts are carried out based on the feedback received.



SAFETY AUDITING

One of the main elements of an effective safety management system is system audits. Turkish Airlines considers its audit work as an opportunity and feedback mechanism to make its operations even safer.

Due to its wide operation network, the Incorporation is in effective contact with many Civil Aviation Authorities and is subject to auditing carried out by both these authorities and the Directorate General of Civil Aviation of the Ministry of Transport and Infrastructure, Republic of Türkiye.

The Operational Safety Audit (IOSA) Program, initiated in 2003 by the International Air Transport Association (IATA), which sets the operational safety standards of the aviation industry, monitors whether airline companies carry out their activities in a healthy and safe manner. Turkish Airlines joined this internationally recognized safety program in 2005. The IOSA audit, which was successfully completed in 2019, will be carried out again in 2022.

In addition to external audits, planned or unplanned internal audits are organized by the Quality Assurance Directorate in order to evaluate the effectiveness of the Safety Management System.

Safety Assessment of Foreign Aircraft (SAFA) Program

The purpose of the Safety Assessment of Foreign Aircraft (SAFA) Program, carried out under the leadership of the European Aviation Safety Agency (EASA), is to identify and resolve any factors that may adversely affect flight safety and to ensure airworthiness. Within the framework of the SAFA Program, the cockpit, cabin, cargo compartments and the general condition of the aircraft are evaluated in terms of safety before and after flight. Accordingly, the flight crew, aircraft documents and technical condition of the aircraft are controlled within the framework of national and international regulations and all rules that may have a direct or indirect impact on safety.

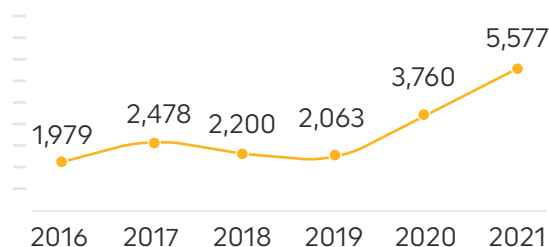
The SAFA rate calculated within the scope of the program is determined by evaluating the number of registrations and safety status obtained as a result of the inspections that the airline has undergone in the last 12 months. As a result of the SAFA audits carried out in 2021, Turkish Airlines' SAFA rate was reduced from 0.318 to 0.054, with a significant improvement compared to the previous period.

Flight Safety Operational Data

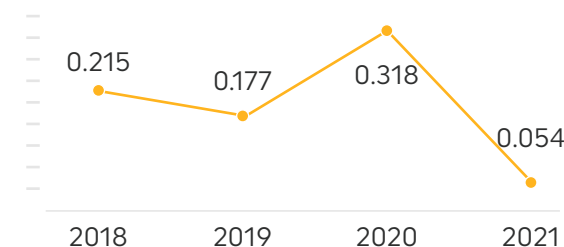
	2020	2021
Number of Aircraft Accidents (Number)	0	0
Sanctions for Non-Compliance with Flight Safety Regulations (Number)	0	0



Reporting Performance




SAFA Rate (%)



Report numbers are calculated by normalizing to each 100,000 flights.



FLIGHT SECURITY

One of the basic elements of operational reliability, flight security efforts are implemented in line with the principles set forth in the Turkish Airlines  **Security Policy**. The Security Management System, created in line with the Security Policy, is carried out by the Security Directorate, which reports directly to the CEO.

The Incorporation's Senior Vice President of Security in the field of aviation security is the Head of Security, approved by the DGCA. The Directorate of Aviation Security, operating under the Presidency, is responsible for the implementation of the practices determined in line with the updates in the national and international aviation security legislation in coordination with the relevant units, intervening in suspicious objects in order to ensure the safety of the aircraft and flights of the Incorporation, escorting inadmissible passengers (INAD), the transportation of cutting/drilling tools and licensed firearms belonging to the passengers, and the execution of aircraft protection duties.

The Building Security Directorate is responsible for the planning, implementation and enforcement of the necessary security measures to ensure that Turkish Airlines personnel and visitors are protected against possible sabotage, attacks and similar events that threaten the security of domestic facility buildings and sales offices (excluding cargo facilities) used by the Incorporation.

Risk Assessment and Investigation Directorate, another unit of expertise operating under the Security Directorate, is responsible for determining the risks by evaluating the security vulnerabilities and their effects during the inspections made at the destinations before the flight operations start, carrying out corrective actions to reduce these risks and ensuring the continuity of these operations by executing observation and control. It is also among the duties of the Directorate to examine the security notifications made by the personnel of the Incorporation, to evaluate the risks of security incidents, and to ensure that risk-reducing activities are carried out in coordination with the Incorporation units and the relevant institutions and organizations outside the Incorporation.

Security Program is prepared in compliance with the Directorate of Security, national and international requirements and with the approval of the General Directorate of Civil Aviation, in accordance with National Civil Aviation Security Program and International Civil Aviation Organization (ICAO), European Civil Aviation Conference (ECAC) and International Air Transport Association (IATA). The Security Program determines the duties and responsibilities of Incorporation employees and service providers, as well as the security practices that must be implemented in all operational and managerial processes in accordance with national and international security legislation.

Procedure documents are created and included in the Incorporation's Operational Handbook to determine the implementation details for the rules and requirements to be followed within the scope of the program.

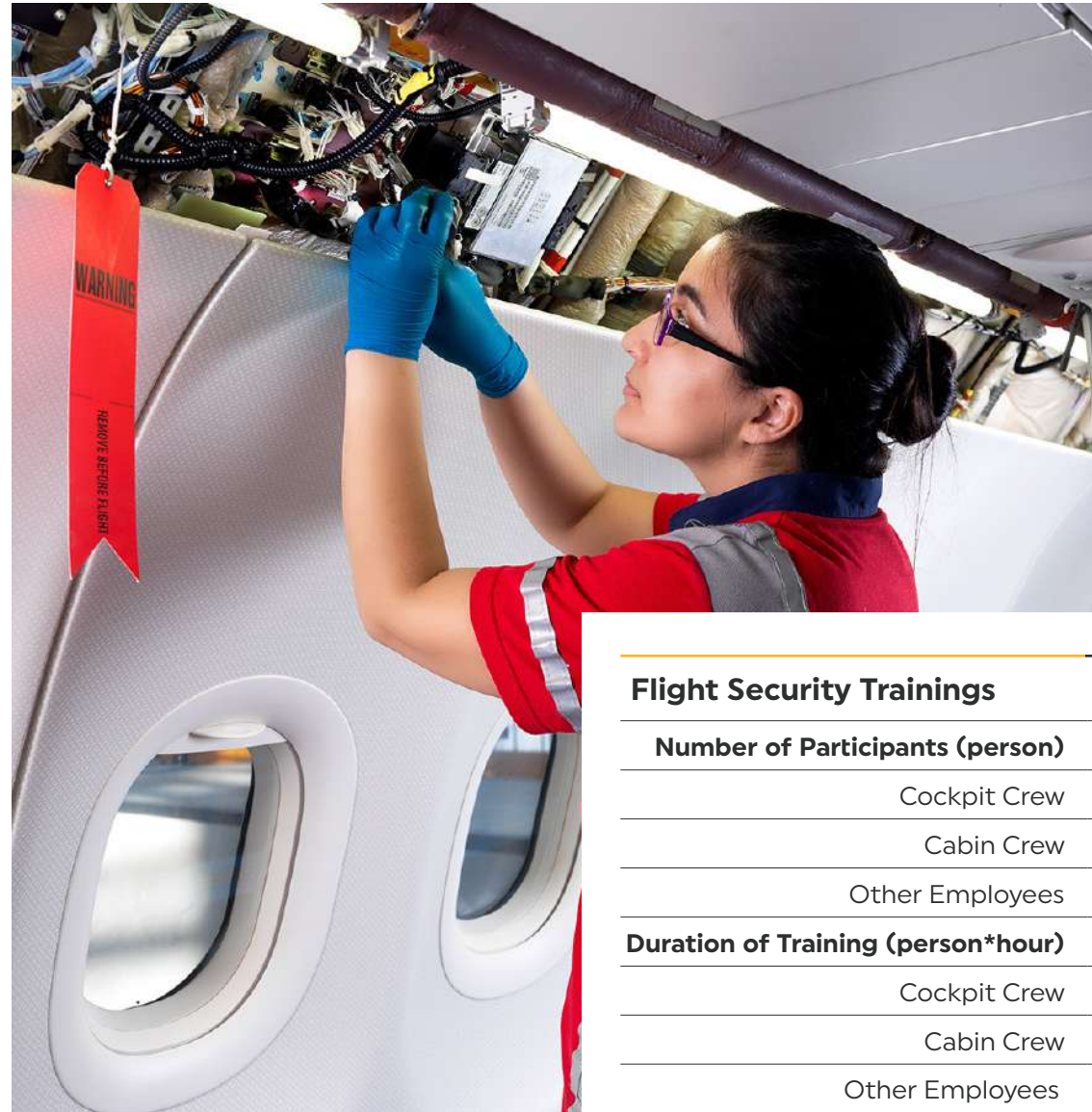
Within the scope of the Security Management System, flight safety activities are subject to internal and external audits at various intervals. In addition, the security inspections of the aircraft can be carried out by the civil aviation authorities of the countries where the flight is made. Within the scope of IOSA requirements, the Security Review Committee Meetings are held twice a year by the Security Directorate and reported to the senior management.



Flight Security Risk Management

Success in flight security practices is achieved as a result of a proactive risk management approach. In this context, planned or event-based unplanned security inspections are carried out primarily for the airports where flights are made or planned to be made, the facilities where flight personnel will be accommodated, and the offices of the Incorporation. Depending on the evaluation results, threat levels, vulnerabilities and possible effects are determined, which leads to the designation of security risk score and level. Measures to be taken according to the determined risk level are resolved and implemented by the relevant units.

In addition to these activities, The Secure Flight Passenger Tracking System was put into practice regarding the refusal to provide travel services with Incorporation flights to persons who threaten the safety of passengers and employees; commit crimes or misdemeanors on board or at the airport; harm the aircraft or endanger their safety; commit acts that cause material or moral harm to passengers, the employees of the Company and the service provider, the airport or aircraft; violates the rules and instructions of the officials and violate the discipline and order.



Flight Security Awareness Studies


Information and communication activities, in-company research and training activities are carried out for the employees of the Incorporation on flight safety. In order to encourage the reporting of all human errors, non-punitive reporting procedures are carried out within the framework of the application confidentiality principle. A communication system has been established to ensure the necessary operational information exchange between business units. All kinds of suggestions, requests and notifications regarding security issues can be forwarded via security@thy.com.

Flight Security Trainings	2018	2019	2020	2021
Number of Participants (person)	10,890	12,226	13,595	13,300
Cockpit Crew	932	1,476	2,620	936
Cabin Crew	2,634	2,992	2,528	2,432
Other Employees	7,324	7,758	8,447	9,932
Duration of Training (person*hour)	16,463	27,144	15,472	22,503
Cockpit Crew	533	816	1,321	470
Cabin Crew	1,601	2,280	1,898	1,502
Other Employees	14,329	24,048	12,253	20,531



Employee Health and Safety

Turkish Airlines believes that securing the health and safety of its employees, business partners and contractors and all stakeholders in its operating locations is an important component of business success. In this direction, the Incorporation positions its occupational health and safety practices as an integral part of the corporate culture by moving beyond legal requirements.

Turkish Airlines  **Occupational Health and Safety Policy** sets out the general principles to be followed in the activities of the Incorporation. Management procedures are included in the Occupational Health and Safety Management System Manual. Collective bargaining agreements with unions also contain basic elements of occupational health and safety and compliance with applicable laws and regulations.

While the Occupational Health and Safety Management System was implemented in compliance with the OHSAS 18001 System Standard in the past, compliance with the most up-to-date ISO 45001 Standard has been completed as of 2021. Compliance certification with ISO 45001 Occupational Health and Safety System Standard was achieved as a result of the independent audit conducted during the year.

The most senior manager responsible for occupational health and safety management throughout the company is the CEO. The Occupational Health

and Safety Board, in which employee representatives take charge, ensures the direct participation of employees in decision-making processes related to health and safety. Occupational health and safety issues are discussed at the Compliance Review Board (CRB) meetings held twice a year with the participation of the CEO and relevant managers. Actional efforts in the field of occupational health and safety are carried out by occupational physicians, nurses and occupational safety experts working within the Health Management.

OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE

All occupational health and safety data generated throughout the Incorporation's activities, including near misses, are reported through online reporting systems. Root causes are

analyzed and studies are carried out to continuously improve performance by taking necessary measures. In 2021, the accident frequency rate was calculated as 7.82 and the accident severity rate as 63 for every 1,000,000 working hours. During the reporting period, there were no fatal occupational accidents or reported occupational diseases.

In 2021, the accident frequency rate was calculated as



7.82

and the accident severity rate was



63

for every 1,000,000 working hours.

Occupational Health and Safety Data	2018	2019	2020	2021
Accident Frequency Rate	8.6	12.69	4.57	7.82
Accident Severity Rate	172	123	37	63
Number of Occupational Disease Cases	0	0	0	0
Fatality due to Occupational Accidents	0	0	0	0
Number of Field Surveillance Studies	-	426	204	632
Number of Physician Activities	157,016	161,992	125,326	117,699

OCCUPATIONAL HEALTH AND SAFETY TRAININGS

Turkish Airlines organizes training activities on various topics to inform its employees and business partners on occupational health and safety issues and to develop a culture of occupational health and safety. Legal rights and responsibilities of employees, principles of OHS culture, occupational safety risks, safe use of work equipment, causes of occupational accidents, emergency plans, evacuation and rescue are among the occupational health and safety training topics offered to employees. The trainings are presented in theoretical and practical content according to the subject discussed. Along with the pandemic, online OHS trainings have also been developed. A total of 153,579 employees participated in the OHS trainings held in 2021. During the year, 159 people attended the trainings offered to contractor companies.

An important part of occupational health and safety training activities is training and drill activities aimed at preparing employees for a possible disaster and emergency. In this context, a total of 215 employees participated in 19 Disaster and Emergency Trainings held in 2021. 97 drills were carried out during the year.

Number of OHS Training Participants	2018	2019	2020	2021
Turkish Airlines Employees	-	14,951	20,563	153,579
Contractor Company Employees	1,165	95	67	159

Disaster and Emergency Preparedness	2018	2019	2020	2021
Number of Disaster and Emergency Training	20	24	10	19
Number of Participants in Disaster and Emergency Training	273	400	145	215
Number of Disaster and Emergency Drills	17	58	8	97

A total of



153,579

employees participated in the OHS trainings held in 2021.



159

contractor employees have attended the trainings offered in 2021.

A total of



215

employees participated in 19 Disaster and Emergency Trainings held in 2021.

In 2021,



97

drill were carried out.



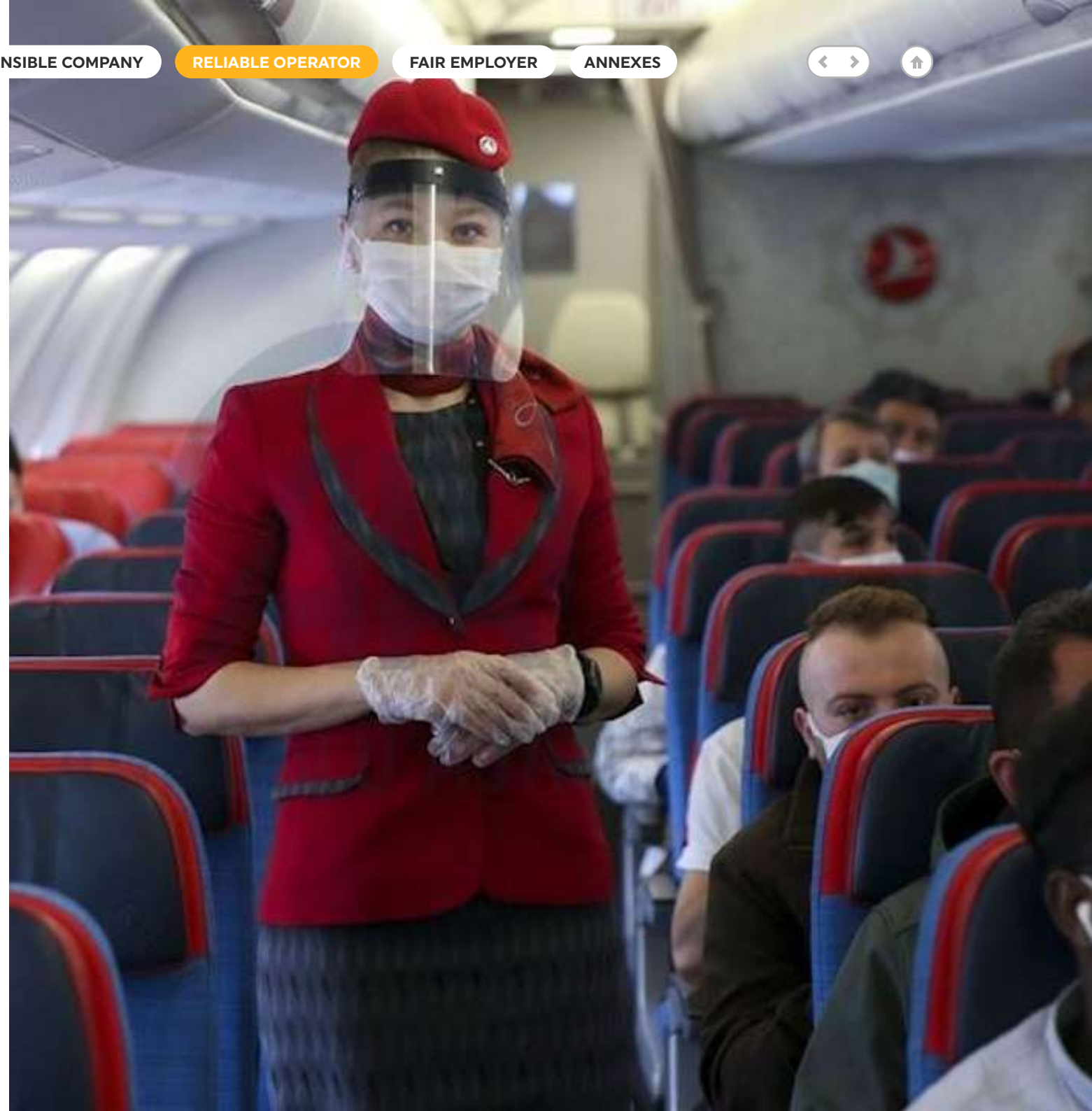
COVID-19 MEASURES

After the first cases of the COVID-19 pandemic were encountered in China in 2020, Turkish Airlines started its efforts to combat the pandemic under the leadership of the World Health Organization and the Turkish Ministry of Health. In this process, Turkish Airlines, as one of the first airlines to sign the COVID-19 Aviation Health Safety Protocol published by EASA, has swiftly adapted to the Operational Guidelines for the Management of Air Passengers and Aviation Personnel in Relation to the Covid-19 Pandemic, created by the joint work of EASA and ECDC (European Center for Disease Prevention and Control).

First and foremost, the widespread use of personal protective equipment and masks, the supply of disinfection and hygiene materials, the establishment of a catering organization in accordance with food safety standards in conditions brought by the pandemic, the improvement of aircraft ventilation and air conditioning systems, the

provision of hygiene kits to passengers, the control of physical operations such as contactless check-in and bag drop were among the measures taken during the pandemic. On the other hand, communication materials and educational content about Covid-19 measures to be taken were created to inform employees, business partners and passengers. Design practices and physical conditions have been developed to facilitate social distancing in buildings and flight operation processes. Health teams, Incorporation employees of Incorporation, business partners and passengers carried out control and follow-up activities, and they switched to 3 shifts, 7 days a week.

In the second half of the reporting period, the increase in vaccination and the significant decrease in the number of cases led to a decrease in extra measures and a significant increase in flight operations. During this period, Turkish Airlines continued its operations without compromising health and safety measures.





Business Continuity

The continuity of Turkish Airlines operations is based on numerous factors. Many business processes that affect business continuity, from flight and employee safety and security to human resources management, from legal compliance to information security, are managed with policies, systems and standards and organizational structure created within the Incorporation. However, one of the most important elements of business continuity in an airline company as Turkish Airlines, which carries out a large physical operation in a very wide geography, is to ensure

continuing airworthiness by maintaining the availability of the aircraft fleet.

Turkish Airlines has been certified as a Continuing Airworthiness and Maintenance Organization with the approval of the Directorate General of Civil Aviation. Thus, Turkish Airlines became the first company in Türkiye to obtain an airworthiness review authorization for the aircraft in its commercial fleet.

Continuing airworthiness and maintenance management activities of all aircraft specified in their operating


licenses (AOC) are carried out by Turkish Airlines. Within the scope of the approvals obtained, the provision of all technical maintenance services, the monitoring of the compliance of the maintenance services received with the agreements, standards and rules, as well as ensuring that the aircraft comply with the applicable airworthiness requirements at any time during their operational life and remain in a suitable condition for safe operation, ensuring management activities are carried out completely and in accordance with current targets.



Innovation, R&D and Digital Transformation

Turkish Airlines has a large operational volume with over 70 million customers per year. Any improvement in Incorporation has the capacity to have widespread effects. The scope of activity and the breadth of customer touch points offer many areas of development. Establishing a structure where each unit in the Incorporation can make progress in their own business area is seen as a suitable solution for the structure and market of the corporation. For this reason, while innovation studies are carried out under the responsibility of the Corporate Innovation and Projects Directorate, Business Development Directorates under the Regional Flights Directorate, Marketing Directorate, Ground Operations Directorate and Cabin Services Directorate develop projects for innovation. As of 2021, R&D activities are carried out at the R&D Center established within the body of THY Technology and Informatics Inc., which is a subsidiary of the Incorporation. During the reporting period, 829 personnel took part in the R&D studies of the Incorporation, 20 R&D studies were carried out, and 6 non-IT new product and service development studies were accomplished.

Through workshops held with the partners of the Incorporation, studies are carried out to increase innovation in the aviation sector with the synergy to be created by different sectors. On the other hand, technology and innovation studies that can be developed together with new

generation initiatives and collaborations in line with the open innovation strategy of the Incorporation were combined on the  **TERMINAL** digital platform. Through the platform, it is possible to develop new technology and service models that will change the rules of the game, apart from traditional approaches in the aviation industry. Within the scope of the Terminal Entrepreneurship Program, interaction was established with more than 100 entrepreneurs in the field of aviation and technology, and collaborations were developed. At the same time, partnerships were made with universities, technocities, technology transfer offices and entrepreneurship centers in order to increase the efficiency in the entrepreneurship ecosystem. As of the reporting period, studies are carried out on many projects such as campaign management, internal communication applications, cargo operation optimization applications through digital channels, in addition to technical applications such as machinery health, predictive maintenance, sustainability

applications such as waste management, energy saving, through the programs carried out within the scope of the Terminal Program.

With the aim to bring startups together with investors, in-flight entertainment systems enable startups in the ecosystem to reach investors on a global scale as part of the Invest On Board program. The main objective of the Incorporation in all these activities is to provide Turkish Airlines customers with higher quality and sustainable service by implementing new products with high added value, advanced technology, and services in a fast, simple, agile and environmentally friendly manner.

Innovation and R&D activities of the Incorporation are managed with a risk- and opportunity-oriented approach. While the relevant business units evaluate the innovation risks and opportunities in the corporate risk management processes, they determine the work to be done in this direction.

R&D Activity Data	2018	2019	2020	2021
Number of R&D employees (person)	666	752	719	829
R&D expenditures (USD)	11,800,612	7,691,853	8,857,844	3,012,839
Number of R&D projects (unit)	33	49	40	20
Number of new products and services developed (unit)	53	10	6	6

Incorporation Innovation and R&D processes are subject to internal audits carried out by the Quality Assurance Directorate.

Employees are encouraged to participate in the process in order to foster innovation throughout the Incorporation. The most basic tool of this participation is the innovation suggestions offered by

the employees. In this context, each of the employees working in the business units throughout the Incorporation has the goal of making two proposals and completing 50% of the accepted proposals outside the field of IT. The performance achieved is reported to the senior management quarterly. Employees who make successful suggestions are encouraged with financial rewards.

Suggestion System Data	2018	2019	2020	2021
Employees who shared suggestions (person)	6,268	4,316	7,144	507
Number of Suggestions Received From Employees (number)	16,716	21,995	24,259	25,129
Implemented suggestions (number)	659	1,100	1,225	1,227
Financial benefit from employee suggestions (million USD)	55	132	163	185



DIGITAL TRANSFORMATION

The digitalization of business processes is among the most fundamental trends towards which the business world is headed today. Especially the conditions brought by the pandemic have increased the importance of digital transformation. In this context, Turkish Airlines carries out digital transformation efforts to transfer many human-made business processes to robotic systems and direct the existing workforce to processes where they can generate more added value.

During the reporting period, many projects were implemented to digitize the Incorporation's business processes or to improve existing systems. With the Robotic Process Automation Project, which is one of these studies, it has been ensured that robots do repetitive tasks in 15 different business processes, which mostly do not require decisions based on human intuition and experience. With the Cargo Work Order Management Project, we aim to establish a system infrastructure that will enable more efficient use of workforce and workspace in cargo business processes.

The Horizon Interactive Awards-winning Flight Tracker application, on the other hand, is a touch sphere that enables the aircraft to be tracked with real-time data and effectively displays the wide flight network. With this application, which will be placed in the private passenger lounge of the Istanbul Airport

international terminal, we aim for the guests to get to know the flight network of Turkish Airlines more closely.

Along with these efforts, various projects are carried out to improve and digitize the end-to-end travel experience. These projects include personalized holiday and travel suggestions, artificial intelligence-based travel assistant, airport maps, contactless check-in and boarding applications at the airport, biometric and rapid transit systems, automatic baggage delivery systems, interactive in-flight screen applications, in-flight internet service, audio and image processing applications.





Customer Satisfaction

The aim of Turkish Airlines is to strengthen customer satisfaction and loyalty by creating the highest level of customer experience in all service processes.

→ The Customer Satisfaction Policy and → The Quality Policy determine the basic principles of the work to be carried out for this purpose. The systems followed in this direction are operated in accordance with → ISO 10002 Customer Satisfaction Management System Standard and → ISO 9001 Quality Management System Standard, in which standard compliance is certified as a result of periodic audits. The works to be carried out are accomplished in line with the processes specified in the Customer Experience Management Procedure, Customer Relations Manual, Ground Handling Manual, Flight and Service Irregularities Procedure, DGCA SHY Passenger Legislation and European Union EC-241/04 Legislation. These tasks, which are executed under the responsibility of the Marketing Directorate, are subject to internal audits by the Quality Assurance Directorate and periodically to independent external audits.

RESPONDING TO CUSTOMER EXPECTATIONS

Customers are contacted through many channels with the aim of learning about their expectations and responding effectively. Implementations are developed with the feedback obtained. Another important aspect of improving customer satisfaction is to learn about the

problems experienced by the customers, to correct this problem if possible, and if not possible, then to take measures to ensure that it does not happen again. Unavoidable disruptions are managed in line with the Flight and Service Irregularities Procedure. In this context, 14,458 customers were responded about the incidents experienced in 2021. The average turnaround time was also reduced to 4.3 days.

On-time take-off and prevention of baggage irregularity are among the main factors that define customer experience. During the reporting period, on-time take off rate of 84.30% was achieved on Anadolu Jet and Turkish Airlines flights. The rate of baggage irregularity was also reduced to 3.7 per thousand passengers during the period.

	2018	2019	2020	2021
Number of incidents that the customers have been followed up (number)	18,260	30,882	7,711	14,458
Average response time to customer complaints (day)	7	5.8	4.9	4.3

During the reporting period, a timely departure rate of



84.30%

was achieved on Anadolu Jet and Turkish Airlines flights.

The rate of baggage disruptions was also reduced to



3.7

per thousand passengers during the period.

Against the disruptions experienced in 2021,



14,458

customers were followed up.

The average turnaround time was also reduced to



4.3

days.

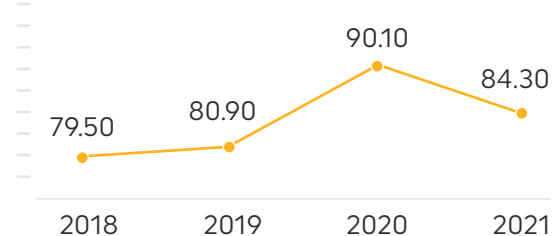
Evaluations from social media, feedback channels and surveys are followed closely in order to monitor changes in customer expectations. In this context, distance communication, hygiene products and disinfection of customer contact points were provided during the pandemic. Again, due to the increasing importance of digital channels, transactions that require physical contact are rapidly digitized. In addition to wide-body aircraft, efforts continue to provide internet infrastructure in all narrow-body aircraft. The increasing in-flight personal space requirement in the business class has been met with the new seat design. Counters that offer special experiences for families with children were opened at Istanbul airport, and rapid transitions were realized in cooperation with the airport management. Customer expectations are closely monitored based on regions and passenger segments, and products and services are customized.

Developing innovative applications in the industry to provide a unique

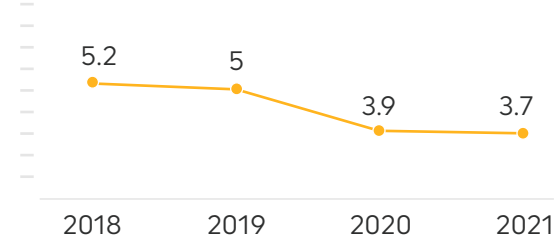
customer experience is one of the main factors in Turkish Airlines' customer satisfaction from past to present. One of these studies is the Business Class Stopover program. Within the scope of this program, Business Class passengers are provided with 2-night accommodation in 5-star hotels, while Economy Class passengers are provided with 1-night accommodation in 4-star hotels. Thanks to this application, passengers can stay at the relevant destination free of charge and benefit from the activities offered by the city. Stopover accommodation service is provided in 108 destinations in 42 countries.

The Customer Relationship Management System was renewed and put into practice during the reporting period in order to better understand the current customer behavior and expectations, as well as their changes over time, and to update and record these findings in the corporate memory.

On-time take-off rate
(%)

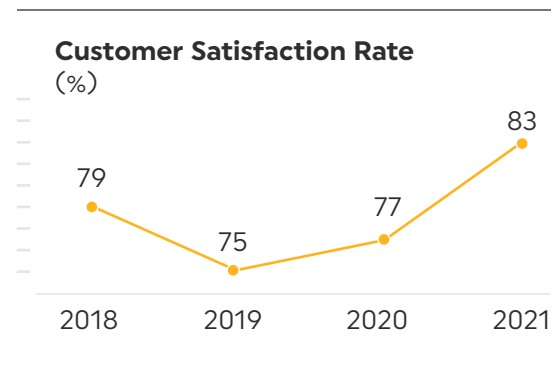


Baggage Irregularity Rate
(%)



CUSTOMER SATISFACTION EVALUATIONS

Turkish Airlines conducts various researches in order to determine customer expectations for products and services in the customer travel process and to measure customer satisfaction and recommendation levels. According to the results of this research, which was carried out in order to better understand the passengers, to identify their needs better and to produce more accurate solutions for these needs, Turkish Airlines' customer satisfaction rate in 2021 was 83% and its Net Promoter Score (NPS) was 42. Turkish Airlines develops new projects based on feedbacks by listening to the voices of its passengers, identifying contact points that cause dissatisfaction with the feedback received from passengers and taking necessary actions.

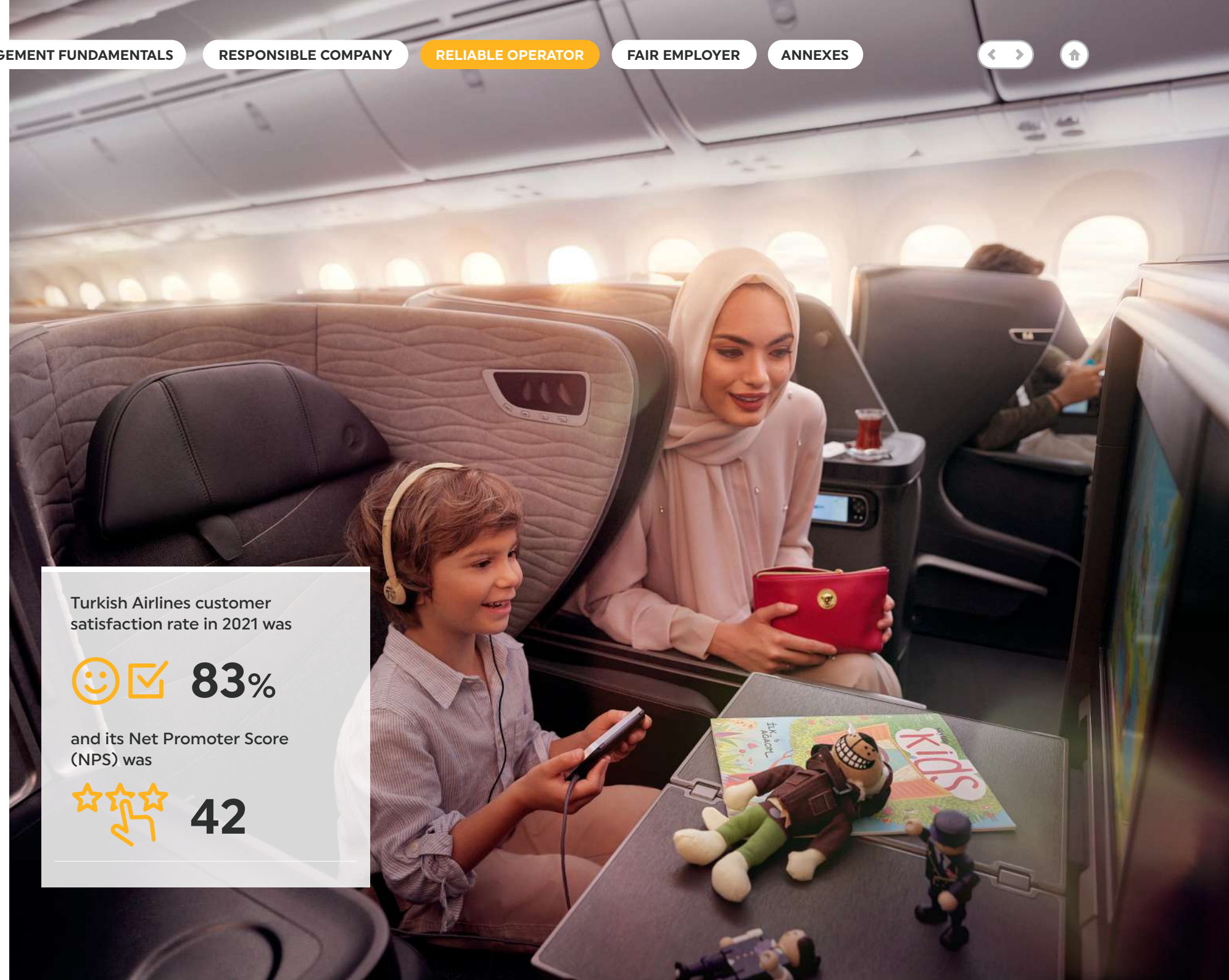


Turkish Airlines customer satisfaction rate in 2021 was

😊✅ **83%**

and its Net Promoter Score (NPS) was

★☆☆ **42**





Fair
Employer

GRI-102-7

Turkish Airlines offers its employees, living in various parts of the world, a working environment where employee rights, diversity and equality are respected and where creativity, development and team spirit are supported. The Incorporation aims to maintain an environment of trust within the company, which respects the private lives of individuals, is fair, constructive, and where ideas can be exchanged freely with a common understanding of success.

Operating with 27,532 employees as of 2021, one of the most important factors behind the success of Turkish Airlines is its young and dynamic staff. The average age of employees within the Incorporation is 36. Turkish Airlines employs a total of 17,594 flight personnel, of which 5,561 are cockpit crew and 12,033 cabin crew.

Turkish Airlines operates with



27,532

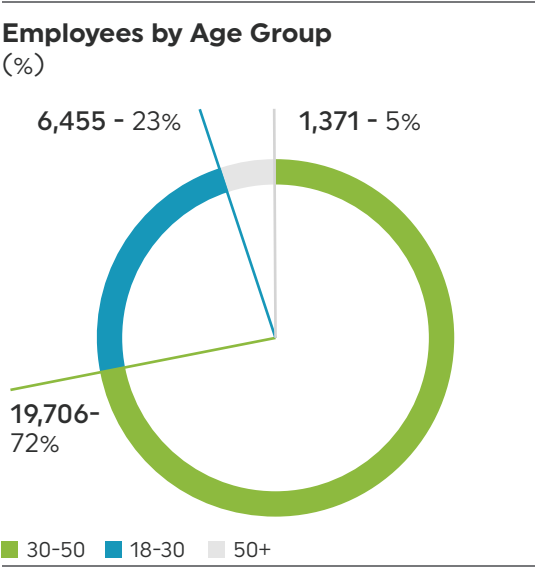
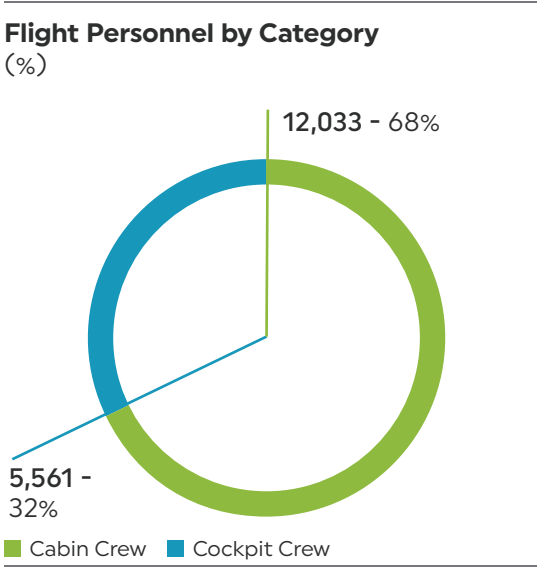
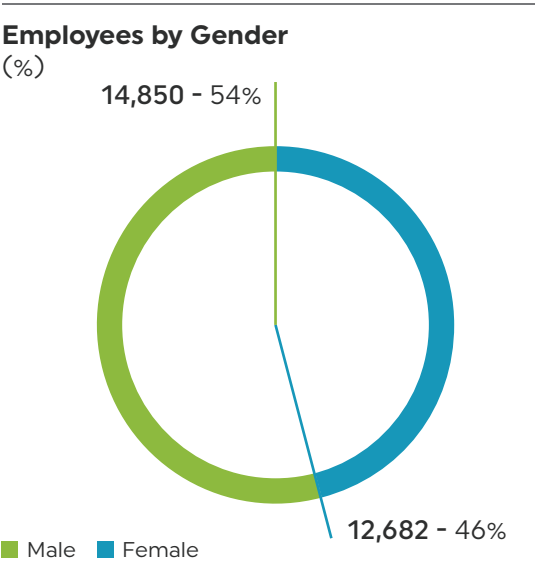
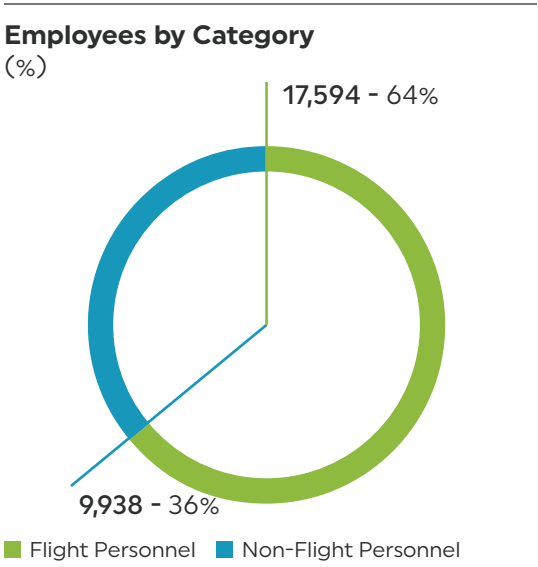
employees as of 2021.

Turkish Airlines employs a total of



17,594

flight personnel.





Gender Balance

The employee base from various countries and cultures play a prominent role in the construction of Turkish Airlines' global success story.

As stated in the Code of Ethics Manual, the Incorporation's understanding of equal opportunity is to provide honest and fair treatment to all employees or

job applicants, regardless of race, color, religion, gender, age, nationality, ethnicity, marital status, pregnancy, disability and to offer everyone equal opportunity.

Supporting Female Employment

Active participation of women in business life is one of the most important support mechanisms on the way to gender equality. Turkish Airlines carries out various practices aimed at facilitating the work life of female employees and enriching their career opportunities. As a result of this approach, as of 2021, 46% of all employees and 66% of cabin crew are women. Focusing on increasing the number and influence of women in decision-making processes in aviation management, Turkish Airlines has a female executive ratio of 25%, including chief positions.

At Turkish Airlines, we strive to ensure that female employees take part in a balanced manner and are visible, especially in technical and managerial roles where there is underrepresentation. Gender is not a determining criterion in recruitment and all subsequent evaluation processes, but individual competencies and efficiencies are taken into consideration. As of the reporting period, 49% of the employees working in engineering



%88ⁱ

of female employees who took maternity leave returned to their jobs.

As of 2021,



46%

of all employees are female employees.



positions are women. The rate of female employees among the employees promoted during the year is 34%.

Within the Incorporation, various practices are carried out to improve the career opportunities of female employees. Their career goals are supported by the announcement of "Overseas Sales and Cargo Supervisor"

position at stations abroad open exclusively for female employees. Through internal communication channels, successful female aviators are provided with the opportunity to share their professional experiences and success stories. At the same time, steps are taken to increase the number and influence of women in decision-making processes in aviation management.

In 2021, Turkish Airlines participated in the **"25by2025-Advancing Gender Balance by 2025"** initiative carried out by the International Air Transport Association (IATA) and committed to increase the current number of female employees by 25% until 2025 in pilot and senior managerial roles.

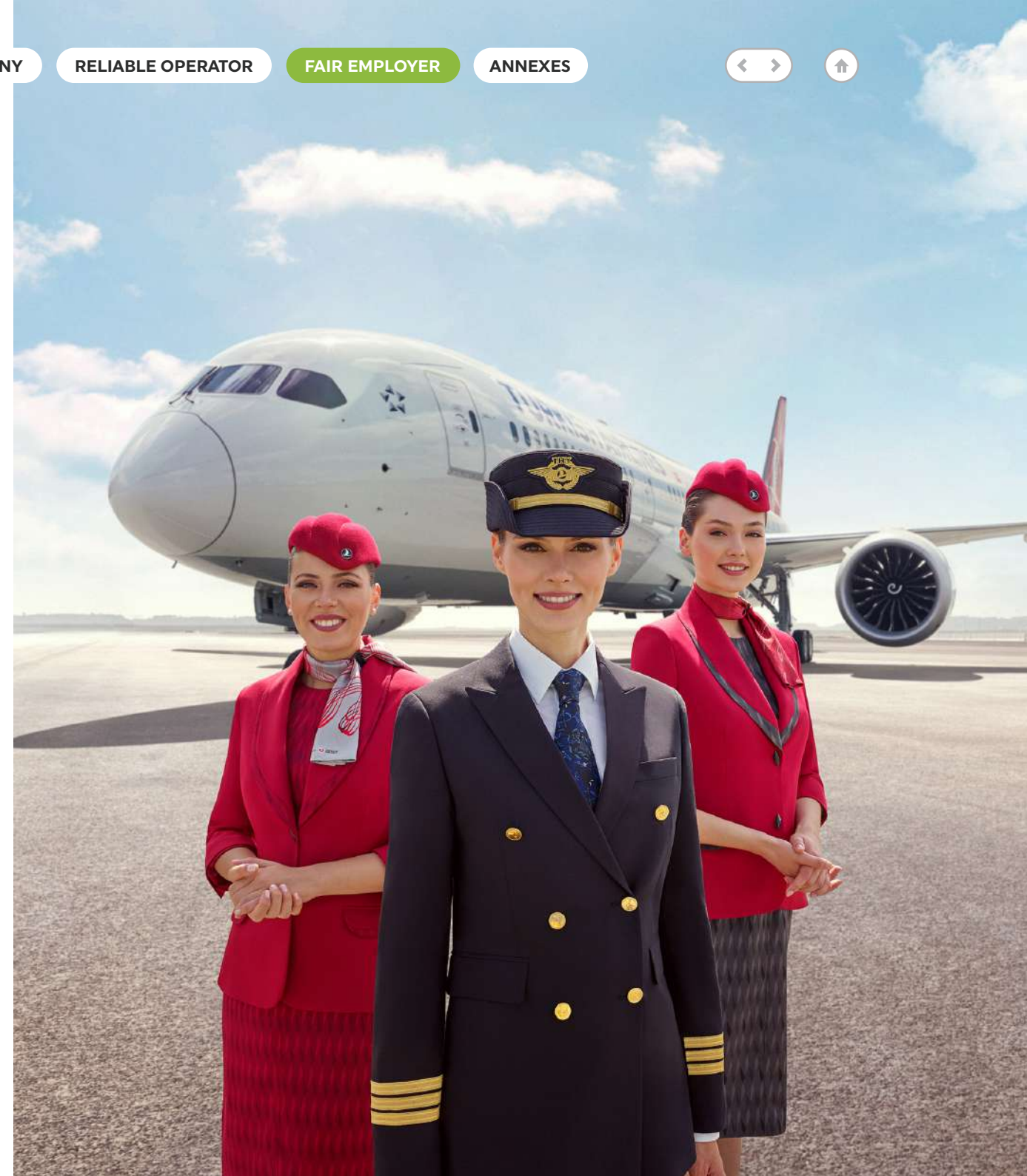
After pregnancy and childbirth, female employees may withdraw from work life for various reasons. Starting from the first stage of pregnancy, several opportunities are provided to female employees to prevent female employment losses at Turkish Airlines.

The period of paid maternity leave, of which the legal leave period is determined as 16 weeks, is applied as 20 weeks. In addition to the legal maternity leave, female employees have the right to use unpaid leave up to 6 months for each child. While female employees have the opportunity to work part-time until their children reach primary school age, they can also benefit from support payments that they can use for childcare or similar services until this period. In 2021, 3,368 female employees benefited from childcare support.

Pre-natal and post-natal flexibility is provided for mothers who work within flight crews. Female flight personnel may be considered on administrative leave during their pregnancy or may choose to take part in office duties. We don't plan flights to countries that are not recommended by the World Health Organization for pregnant flight crew members. To ensure that flight crew members who are breastfeeding their babies do not stay away from their children at night, no overnight duties are planned for two years. Also taking into considering the needs of the flight personnel, the project to open a nursery that will operate 24/7 at Istanbul Airport has been started.

Thanks to all these practices, 88% of female employees who took maternity leave at Turkish Airlines in 2021 returned back to their jobs.

Turkish Airlines is a member of the **Gender Balance Development Commission** established by the General Directorate of Civil Aviation. In this context, it supports national and international projects to contribute to the development of gender equality at all levels in the aviation industry.





Supporting Disabled Employment

Turkish Airlines is determined to employ disabled people and to offer them the opportunity to show their skills and talents with the flexible working environments it provides. In this direction, working conditions are facilitated by making work areas suitable for the needs of disabled employees, and separate messages are prepared for blind and partially sighted employees in internal communication correspondence. As of 2021, there are 212 disabled employees within the Incorporation, and 23 of them are in managerial positions of chief or higher.



Human and Employee Rights

Turkish Airlines considers the health, safety, dignity and well-being of its employees, customers, business partners, contractors and anyone who may be affected by its activities as its highest priority in all areas of operation.

 **The Human Rights and Employee Rights Policy** has been prepared in order to create a guide that reflects the Incorporation's approach and standards on human rights and to emphasize the importance it attaches to human rights and employee rights. Based on this guiding policy, Turkish Airlines is committed to operate in compliance with international principles, standards and national legislation set out in Universal Declaration of Human Rights, International Labor Organization's (ILO) Declaration of Fundamental Principles and Rights at Work, United Nations Global Compact, United Nations Business Life and Human Rights Guiding Principles, United Nations Women's Empowerment

In 2021, 6,207 employees received training on prevention of harassment, mobbing, oppression, and violence. In addition, 317 employees were informed about human rights policies and procedures within the scope of orientation trainings.

Principles (WEPs) and Worst Forms of Child Labour Convention (ILO/No.182).

Under the umbrella of the Incorporation and within the scope of its operations, no one can be forced to work without their consent, by hindering their legal rights, and the use of child labor is strictly prohibited. Turkish Airlines suppliers and stakeholders are also expected to act accordingly.

Turkish Airlines respects the rights of its employees to unionize and collective bargaining. Accordingly, 87% of the employees are members of Hava-ış Union. General recruitment rules and principles, the type and duration of employment contracts, social rights and wages are clearly stated in the Collective Bargaining Agreement and the internal procedures of Turkish Airlines. The Collective Bargaining Agreement is being progressively developed to improve employee rights, and protocols are signed between the Incorporation and the authorized union to protect the economic and social rights and interests of all employees.




Work and Private Life Balance

The mental and physical health of Turkish Airlines employees is a top priority. A well-established balance between work and private life plays an important role in maintaining the physical and psychological well-being of employees. In this direction, practices are carried out to facilitate employees' balancing between work and family life. Flexible working hours, extended legal leave periods, part-time and remote working opportunities, unpaid leave due to spouse and paternity leave are the practices carried out within this scope.

Fair Remuneration

Adopting the principle of equal pay for equal work, Turkish Airlines' procedures followed in the remuneration of employees are transparently accessible to all employees. Wage differences between employees depend only on seniority and level, and there are no gender-based differences. On the other hand, practices are aimed at attracting successful and talented employees to stay in the Incorporation, taking into account the sectoral competitive conditions in determining remuneration.

Turkish Airlines  **Remuneration Policy** has been prepared to define the remuneration principles of the members of the Board of Directors and senior executives in accordance with the provisions of the Capital Markets Board's Corporate Governance Bulletin No. II-17.1.



Talent Management



Recognizing its employees as the most valuable asset, Turkish Airlines addresses talent management in a holistic manner. Being an employer of choice, Among the components of the Incorporation's talent management are to be a workplace of choice for qualified employees, to develop long-term relationships by keeping the motivation and creativity of employees alive during their working hours, to enable employees to realize their potential, and to support employees in all conditions, both socially and academically. The Incorporation aims to strengthen the sense of belonging and loyalty by providing a strong employee experience, and to keeping the progress together with employees who embrace corporate values.

Career Development

With its wide flight network reaching 128 countries and its multicultural structure, Turkish Airlines offers its employees a unique career opportunity in the aviation

industry. Providing opportunities for the development of employees' professional and personal skills and competencies and keeping employees satisfied and motivated is a priority for the Incorporation. To maintain the competency development programs internally, the "HR Development Journey" program has been created under the Human Resources Department and the program has been operating for three years.

Contributing to the training of qualified employees to be recruited by the aviation sector is among the objectives of the Incorporation. Various activities are organized to inform university students about career opportunities and recruitment processes at Turkish Airlines and to reach qualified applicants directly. With the TAKE OFF project carried out in 2021, Turkish Airlines aims to facilitate recruitment of 3rd year university students or new graduates, thus contributes to the participation of the young population in the employment market.

Evaluation Center

In employee evaluation processes, cooperation is made with experts and academicians who are experts in the measurement and evaluation system. Evaluation studies are carried out on the Turkish Airlines Online Exam Platform, which was created specifically for the Incorporation. Thanks to this platform, position-based measurement and evaluation can be made with valid and reliable content.



Turkish Airlines Aviation Academy

Turkish Airlines Aviation Academy, which holds numerous national and international accreditations and approvals, provides in-class and online training to its trainees with its expert staff. Turkish Airlines Aviation Academy not only provides trainings for the employees of the Incorporation, but also provides training and consultancy services for other airline and cargo companies, travel agencies, universities, airport operators, and other companies and individuals in the civil aviation sector.

Turkish Airlines Aviation Academy has been IATA's Regional Training Partner and Authorized Training School since 2011. The trainings given by the Academy are carried out under three categories: Corporate Solutions, Organizational Development and Language Skills. Passenger services and trainings, ground operation trainings, professional and personal development trainings, aviation and vocational language trainings are among the wide range of training offered by the academy.

Training plans for employees of the Incorporation are arranged upon development needs of the employees. In addition to the general catalog trainings, needs-specific trainings are

provided. Training activities are intended to enable employees to discover their potential. In this direction, individual awareness, time management in the new normal, productivity and communication are emphasized in the training contents.

Training activities are conducted through various channels such as classroom training, virtual training, digital training, distance training and YouTube broadcasts. In addition, online communication meetings and workshops are held to inform the teams about sectoral developments.

In 2021,



413,024

people participated in the trainings held by the Aviation Academy.



475,000

USD has been allocated for training activities.



National and International Accreditations and Partnerships

General Directorate of Civil Aviation
Authorized Training Institution

- Passenger Services
- Load Control and Communication
- Ramp
- Oversight and Management
- Safety Management System
- Aviation Security
- Dangerous Goods

Language Proficiency Service
Provider and Authorized Exam
Center

Aviation Training Course Authorized
by the Ministry of National
Education

IATA Certificate of Accreditation
for Air Transportation of Dangerous
Goods Training

IATA Regional Training Partner
Certificate

Graduate Programs

During 2021-2022 academic year, Turkish Airlines has collaborated with several universities to support the specialization of employees and to facilitate their easy access to training opportunities, thus admission of employees to Graduate Programs were enabled.

Virtual Classroom Trainings

Following the outbreak of the pandemic, Turkish Airlines adopted the virtual classroom training format. Through the virtual classroom application, employees in different locations were brought together in virtual classrooms on a web-based basis, providing ease of access to trainings. By transforming classroom

trainings into the virtual trainings, 13,193 hours of virtual classroom training was provided to 11,930 trainees in 2021. In addition to the virtual classroom trainings, virtual seminars with high aviation know-how were held to benefit from the experience of the Incorporation employees in the aviation sector. In this context, a total of 4,002 person*hours of Virtual Seminars delivered to 23,392 trainees.



Foreign Language Applications

In 2021, access to the "Voxy" mobile application was provided for cabin crews to practice English whenever and wherever they want. In the Voxy Application, there are training contents aimed at improving listening, reading, writing and speaking skills in both general English and professional fields, and the progress of the teams in their language skills can be followed through the application. The fact that cabin crew members speak a second foreign language besides English directly contributes to customer satisfaction. For this purpose, the second foreign language levels of the teams are also evaluated by expert trainers.

Expat Conversation Club

The Turkish Speaking Club project was implemented in order to support expat cabin crew for improving their Turkish language skills, hence increase passenger satisfaction. Expat cabin crews who complete the six-month training receive Turkish A1 and A2 certificates.

In 2021,



3,524
classroom and
virtual classroom
trainings



26,980
person*hour total
training time



43,077
trainees

Certificate Programs

To contribute to the professional development of the employees in the Incorporation, 10 different certificate programs were carried out for the 2021-2022 period. In addition to benefiting from the knowledge and experience of expert internal trainers for certificate programs, external support was also received from the academic staff of universities.

2021-2022 certificate programs: Lean Thinking and Lean Management System, Corporate Communication and Brand Management, Sustainability-Oriented Quality Management, Project Management, Customer Experience Management, Overseas Managers Development Program, Executive Assistant, Finance Micro MBA, Business English and Trainer's Training.

YouTube Seminars

Academicians who are experts in their fields and professionals from the business world are invited to the "Live Broadcast YouTube Seminars" launched on the YouTube page of the Aviation Academy and are brought together with the employees of the Incorporation. In this context, 8 different seminars were held in 2021.

Flight Training Center

In 2021, Flight Training Directorate has provided approximately 45,000 cockpit personnel, cabin crew, dispatcher and load master trainees with trainings in accordance with international standards. The Flight Training Center, which provides national and international authorizations and training services for domestic and foreign customers, aims to be one of the most comprehensive training centers in Europe, the Middle East and Africa region.

Together with the studies carried out with institutions and organizations, the Flight Training Center makes significant contributions to the development of knowledge on civil aviation both nationally and internationally. Carrying out its activities with the vision of reaching the highest performance standards in aviation safety and security, the Flight Training Center is an internationally competent training center supervised and authorized by Turkish Civil Aviation and many foreign civil aviation authorities.

The trainings are given in two campuses containing 24 actual simulators (28 simulator competencies), 75 classrooms and a conference hall in a closed area of 41 thousand m². A total of 582 trainers can serve simultaneously to 1,650 trainees with a total of 599 trainers and 363 personnel, 472 of whom are experts in their own branches, 472 of whom took part in cockpit and 127 cabin trainings.



Flight Training Center Equipment

Cockpit Trainings	Cabin Trainings
<ul style="list-style-type: none"> • 24 Full Flight Simulators (FFS) • 7 Flight Training Devices (FTD) • 2 VSIM classrooms with a capacity of 16X2 = 32 students • 6 Computer Based Training (CBT) classes 	<ul style="list-style-type: none"> • 3 Mock-Ups • 1 Fire Fighting Training Device (RFFT) • 8 Door and Window Training Devices • B777, B787 and A320 Evacuation Slide • 4 Emergency Station Zones • Ditching Pool • 6 Cabin Service Training Devices (CST)

Thanks to the authorizations obtained by the Flight Training Department, cockpit crews ground courses and flight trainings, cabin crew ground courses and applied trainings, pilot candidate trainings, dispatcher, load master and SAFA trainings are provided. Through these trainings we aim to increase the knowledge, skills and competencies of flight crews in subjects such as communication, taking responsibility, leadership and team management, problem solving, and sound decision making. Trainings are regularly updated to ensure continuity of authorization and compliance with national/international standards.

At THY First Aid Training Center, Ministry of Health-approved first aider ID cards


and certificates are issued to employees working in ground units as well as flight crews. At THY First Aid Trainer Training Center, first aid trainers are trained, and Ministry of National Education approved training of trainer courses are held. At the Flight Training Center, seminars on operational practices related to fuel efficiency are also held with an awareness of environmental responsibility.

Every year, cabin crew members are assigned with e-learning courses assigned as part of refresher training, to ensure the continuity of their Aircraft Type Certificates. In 2021, "General Case Reminders" e-learning training was offered to cabin crew members who had

In 2021, cabin crew members received

 **277,754** hours

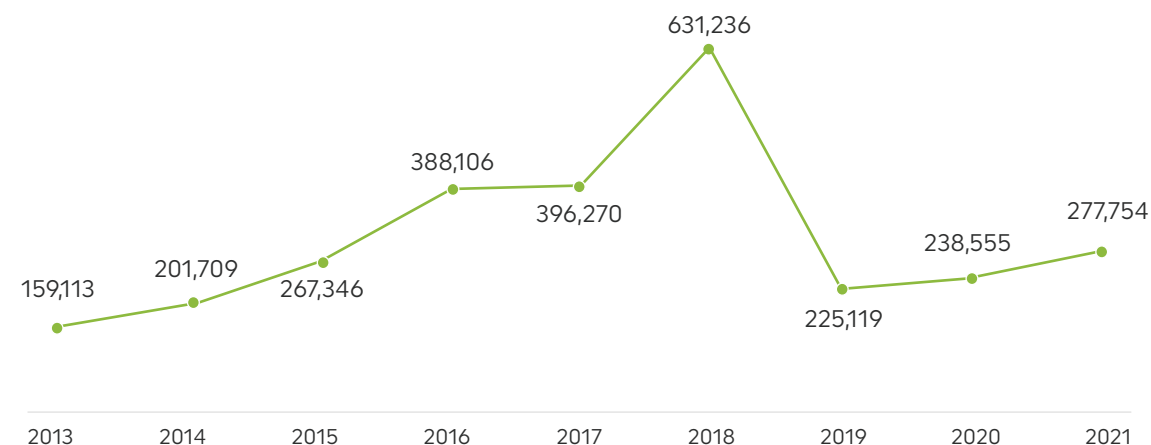
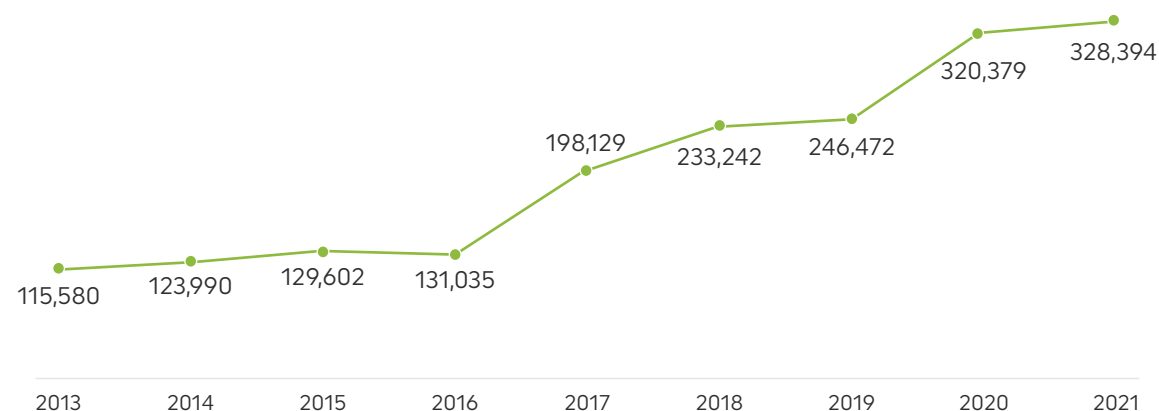
Cockpit employees received

 **328,394** hours

of training at the Flight Training Center.

to temporarily withdraw from flight operation due to the pandemic, to keep their know-how up to date. "B737 MAX" e-learning training was offered due to the return of B737 MAX aircraft to flight operation, and e-learning trainings on "Operation Procedures for Aircraft Carrying Over Limit Dry Ice" were held to take additional measures due to the transport of vaccines on aircraft. In 2021, 277,754 hours of training for cabin crew and 328,394 hours for cockpit staff were provided at the Flight Training Center.



Cabin Crew Training (hour)**Cockpit Crew Training (hour)**

In 2021, 37 new customers were included in the customer portfolio, bringing the total number of customers of the Flight Training Center to 86. During the period, 6.2 million USD revenue was generated from training sales. It is expected that the capacity offered to customers will decrease in 2022 and training sales revenue of 5 million USD will be obtained due to the increase in internal training needs with the recovery in the aviation sector and increased operations after the pandemic.

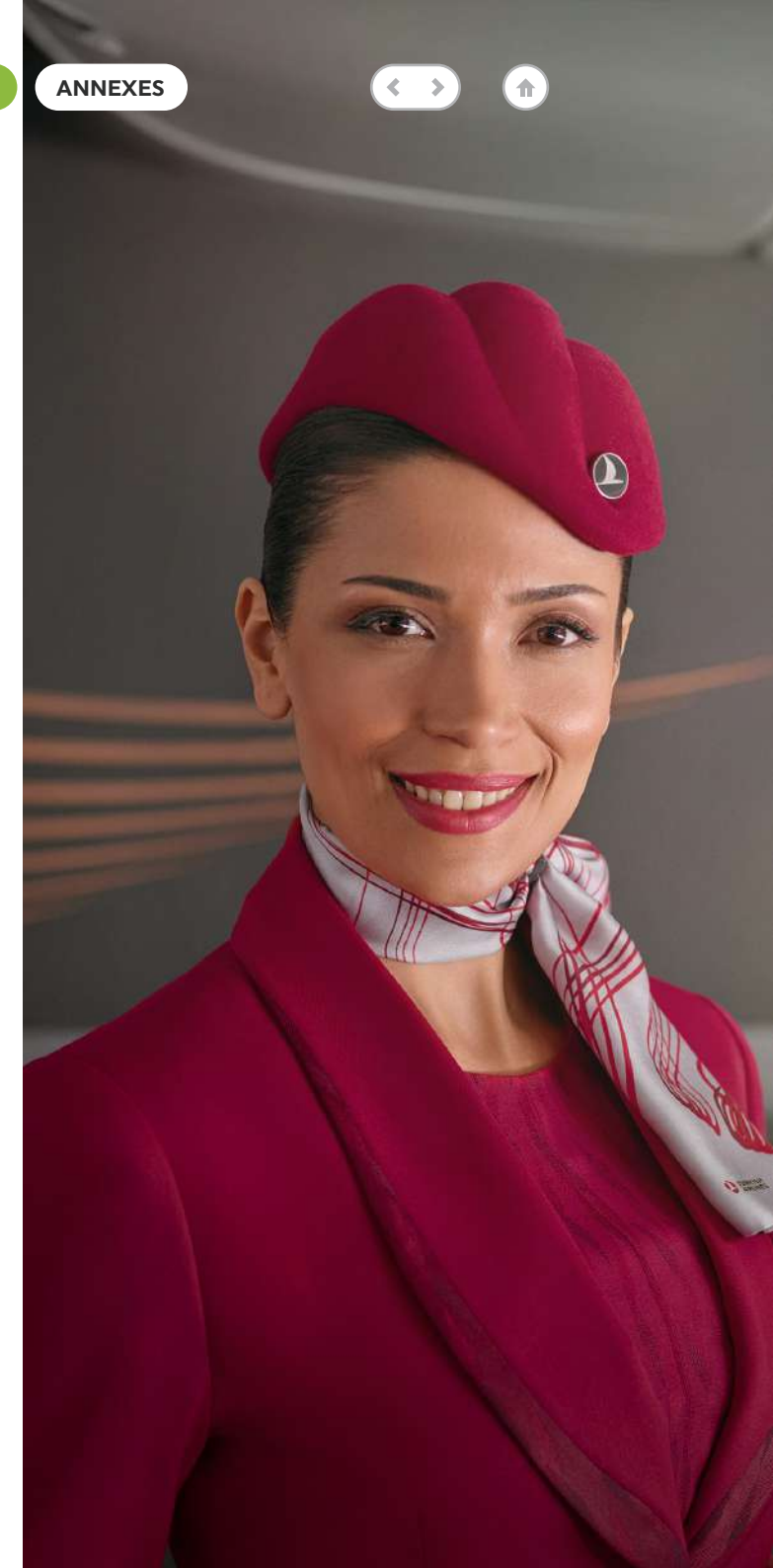
By 2022, we aim to increase the number of Full Flight Simulators at the Flight Training Center to 29 and the number of Flight Training Devices to 13. The MINT Training Management System platform, which is aimed to be used to increase the ability to work simultaneously and in coordination with the relevant units, to increase communication and resource efficiency, is in the integration phase. In addition, we plan to complete the new website, which is still in progress, in order to increase the awareness regarding the training center.

During the period,



6.2 million

USD revenue was generated from training sales.



Improving Employee Experience

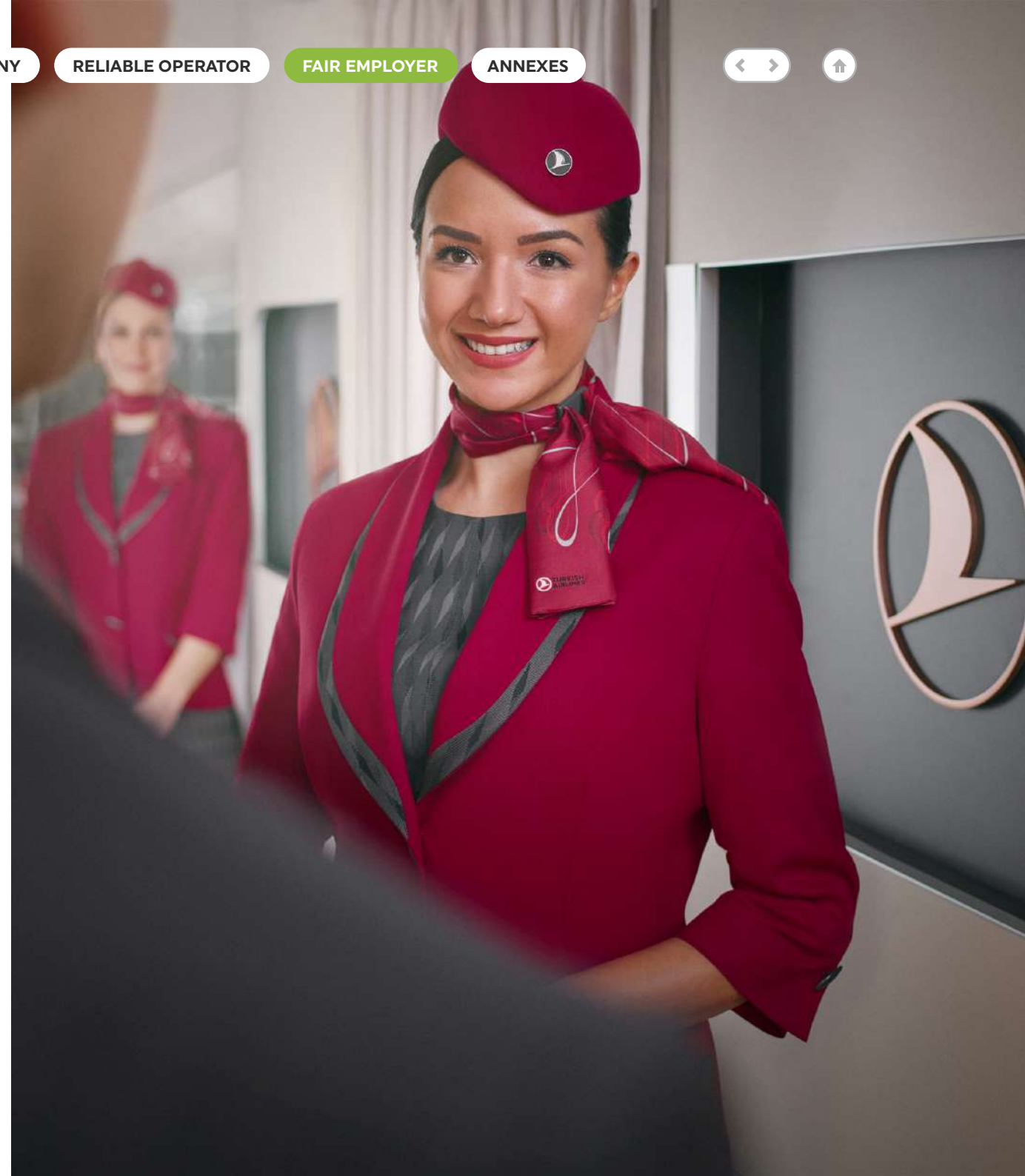
Turkish Airlines aims to strengthen employee motivation by providing a better employee experience. The Employee Experience Department operates within the Incorporation, which aims to improve the positive experiences of employees throughout their working lives. On-boarding and promotion interviews with employees aim to identify areas that are open to improvement, and new generation HR practices are implemented by evaluating the feedback received from employees with the employee experience map.

Employees are supported from the day they join the Turkish Airlines family to retirement and even in the post-retirement period. Care is taken to increase the quality of life of employees with the care shown in processes such as transportation, nutrition and office ergonomics. Employees can benefit from a wide range of practices such as extensive service network, food service, private health insurance, private health insurance discounts for employee families, maternity, breastfeeding, decess and marriage leave and allowances, extended maternity leave, daycare benefits, discounted travel opportunities, contractual institutions.

HR Analytics studies are carried out to benefit from the data in improving the employee experience. The Incorporation's Recognition and Appreciation Platform enables employees to interact and support each other.

Within the framework of Social HR, which is designed to bring employees of the Incorporation together to share interests and experiences, and to contribute to communication and information exchange, a presentation was prepared to address key issues and is planned to be made available soon to the employees of the Incorporation, underlining such practices as "Ethical Leadership" and "Mobbing" as both a preventive action and to raise awareness of the Incorporation managers and employees.

Employees can share their business priorities and development plans with their managers through the mobile application, which is one of the internal communication channels, and they can also be informed about brand agreements, surprise gifts, activities for clubs, and internal information through the mobile application. With the mobile application, we aim to increase cooperation within the organization and to make talents visible.



Employee Retention

High turnover rate and talent loss are seen as a major human resources risk and is managed as part of corporate risk management. To keep the employee turnover rate low, the needs and expectations of the employees are analyzed, and solutions are produced for their needs, thus aiming to make the most of the trained workforce. At the same time, procedures and policies have been established, such as the Human Resources Procedure, the Employee Experience Procedure and the Employee Experience Map, in order to use the communication and relations of the employees with the Incorporation more effectively and efficiently.

Managers receive support since the approach of managers plays a prominent role in employee circulation. Managers are periodically informed and encouraged to establish healthy relations with employees, to see the problems experienced by the employee at work, to give feedback, to evaluate performance and to reward. Managers and senior managers are given targets in the Corporate Performance System with the Employee Satisfaction Compliance Map. In addition, developments in the sector, new human resources trends and policies in the world are kept track. With these efforts, we aim to keep the employee turnover rate below 5.5% for 2022 and to increase employee satisfaction by improving employee experience.

Adapting to new working models has an important place in maintaining employee continuity. During the pandemic, working models such as short-time working, remote working, and hybrid working models were developed and implemented throughout the Incorporation, except for flight personnel.

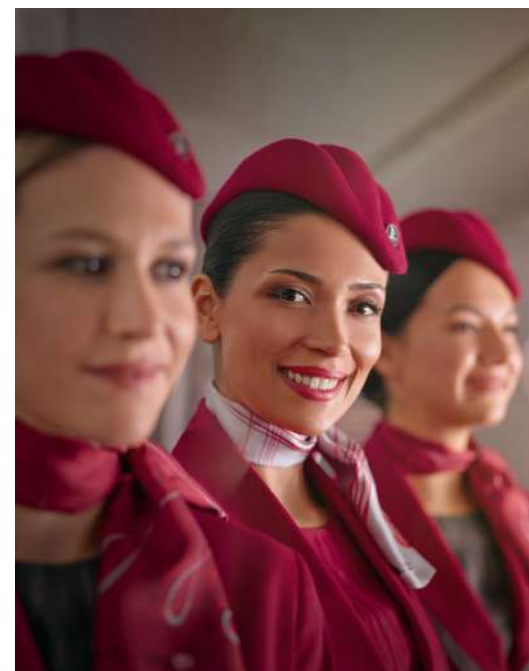
Candidates who have a good grasp of the requirements of the position and who meet the conditions of being a manager specified in the HR procedure are promoted. In 2021, 79 executive positions were filled with internal

appointments. Manager appointments abroad are predominantly made within the company. Employees who have passed the domestic chief candidate processes and are successful are appointed as managers.

Among the objectives of the partnership to ensure employee continuity are the creation of a succession plan to fill senior managerial or critical operational positions, and the determination of the wage and fringe benefits package of employees working abroad according to the dynamics of each home country.

Chief Candidate School

The Chief Candidate School project has been launched to assign chiefs immediately for overseas stations when needed. Appropriate candidates for the positions of chief accountant, station chief, sales chief, and cargo chief are identified and included in the Evaluation Center applications and subsequently in the assignment pool. In this way, all employees are offered the opportunity to become a manager candidate abroad, regardless of the unit.



Employee Volunteering

As a result of being a large organization with many employees, Turkish Airlines has various voluntary societies and associations formed by employees on a voluntary basis and independently.

Widen Your Heart and Technic for Good are volunteer movements in which employees organize humanitarian aid activities in Türkiye and abroad. The Benevolent Flyers Association, which was initiated by Turkish Airlines flight attendants and became an association over time, continues its studies focused on training, especially in the country.

Especially before the pandemic, Turkish Airlines supported its volunteering employees, gave them the right to work permits and tickets to facilitate their volunteer activities, and ensured the use of company facilities in foreign visa procedures and accommodation. In 2019, more than 1,000 employees supported the organizations of the Widen Your Heart volunteer community, 40 employees were one-on-one in the field of aid activities, and approximately 2 million TL worth of humanitarian aid was delivered to 18 countries. Due to the impact of the pandemic and remote working conditions, these studies were suspended.

Performance Indicators

FINANCIAL AND OPERATIONAL PERFORMANCE	2018	2019	2020	2021
Net Revenue (million USD)	12,855	13,229	6,734	10,686
Passenger Revenue	10,918	11,167	3,792	6,390
Cargo Revenue	1,647	1,688	2,722	4,015
Other Revenue	290	374	220	281
Operating Profit (million USD)	1,191	876	-255	1,414
EBITDAR (million USD)	3,349	3,107	1,866	3,744
EBITDAR Margin (%)	26.0%	23.5%	27.7%	35.0%
Net Debt	7,687	10,107	14,120	11,596
Total Assets	20,732	24,724	25,530	26,537
Total Investments	2,940	4,315	4,903	4,193
Fleet Investments	1,291	2,402	2,926	2,061
Leasing Repayments	906	974	1,541	1,786
Other	743	939	436	346
Return on Equity (ROE) (%)	13.0%	11.0%	-16.0%	14.0%
Total Flight Miles (nautical mile)	467,942,609	500,095,380	254,970,056	379,947,624
Available Seat*Km (million Km)	182,031	187,696	74,960	127,769
Revenue Passenger*Km (million Km)	149,169	153,186	53,249	86,701
Revenue Passenger (person)	75,167,807	74,276,202	27,950,200	44,787,730
Passenger Load Factor (%)	81.9%	81.6%	71.0%	67.9%
Flight Destinations	310	321	324	333
Number of Landings	511,064	507,314	240,339	357,189
Distance Flown Km (thousand)	866,630	926,177	472,205	703,663
Cargo & Mail Carried (ton)	1,412,423	1,543,028	1,487,233	1,879,552
Excess Baggage Carried (ton)	7,717	11,725	7,281	20,695

FINANCIAL AND OPERATIONAL PERFORMANCE	2018	2019	2020	2021
On-time Take-off Rate (%)	79.50%	80.90%	90.10%	84.30%
Baggage Irregularity Rate (‰)	5.2%	5%	3.9%	3.7%
Turkish Airlines-Only International Routes	146	154	155	142
Turkish Airlines-Only International Routes within Top 20 Airline Companies	209	219	216	203
Turkish Airlines-Only International Destinations within Top 20 Airline Companies	30	30	24	22
Fleet Data				
Fleet average age	8.20	8.33	8.44	8.50
Total number of aircraft	332	350	363	370
Number of narrow-body aircraft	218	230	234	246
Number of wide-body aircraft	92	97	104	104
Number of cargo aircraft	22	23	25	20
R&D Expenditure (USD)	11,800,612	7,691,853	8,857,844	3,012,839
Number of R&D Employees	666	752	719	829
Patent Applications (number)	10	10	9	0
Number of R&D Projects	33	49	40	20
Direct Economic Value Generated (million USD)	12,855	13,229	6,734	10,686
Direct Economic Value Distributed (million USD)	11,686	12,644	7,264	9,411
Operating Costs	9,827	10,477	6,103	8,051
Salaries and Benefits Paid to Employees	1,772	2,067	1,097	1,298

FINANCIAL AND OPERATIONAL PERFORMANCE	2018	2019	2020	2021
Dividend Paid	0	0	0	0
Taxes and Similar Payments to the Government	41	52	41	37
Donation, Sponsorship and Corporate Responsibility Expenditures	46	48	23	25
Tax Paid				
Republic of Türkiye (million TL)	773,139,271	1,441,302,581	898,893,051	1,472,755,988
Other States (million TL)	59,865,126	66,849,176	59,912,800	54,248,048
Airports (million USD)	1,108,276,906	1,120,050,112	425,535,737	740,139,335
Local Procurement Rate by Expenditure (%)	79.56%	69.01%	76.55%	62.50%
Local Procurement Rate by Number of Suppliers (%)	-	73.62%	78.64%	76.80%
Code of Ethics, Anti-Bribery and Anti-Corruption Training				
Total training participants (number of people)	5,910	4,320	2,420	6,207
Total training hours (person*hour)	2,955	2,160	1,210	3,103
Ethical Line Grievances (number)	245	278	134	179
Discrimination Grievances (number)	9	5	2	4
Total Amount of Significant Cash Fines Paid (million TL)	-	-	-	1,1
Non-monetary Sanctions (number)	-	-	-	1
Incentives from Government and International Institutions (million USD)	62	110	164	187
Employee Suggestion System Data				
Number of Employees Giving Suggestions (number)	6,268	4,316	7,144	507
Number of Suggestions Received From Employees (number)	16,716	21,995	24,259	25,129
Number of Suggestions Implemented (number)	659	1,100	1,225	1,227
Financial Benefit from Employee Suggestions (million USD)	55	132	163	185

FINANCIAL AND OPERATIONAL PERFORMANCE	2018	2019	2020	2021
Total Energy Consumption (GJ)	236,312,657	247,848,257	126,067,694	187,326,898
Direct Energy Consumption (GJ)				
Aviation Fuel	236,005,081	247,382,766	125,592,531	186,711,059
Natural Gas	143,324	142,719	128,241	124,505
Gasoline and Diesel	34,187	27,536	16,761	1,675
Other Resources	0	0	0	0
Indirect Energy Consumption (GJ)				
Electricity	127,828	252,226	210,985	326,487
Other Resources	2,237	43,010	119,175	163,173
Fuel Consumption				
Aviation Fuel (Ton)	5,351,589	5,609,587	2,847,903	4,233,811
Natural Gas (m³)	4,149,367	4,131,857	3,712,707	3,604,558
Gasoline (liter)	6,640	2,091	3,489	265,936
Diesel (liter)	940,453	774,876	469,721	413,430
Fuel Saving (GJ)	1.305,713	2,447,197	1,003,716	1,635,316.2
Fuel Saving (Ton)	29,608	55,492	22,760	37,082
Fuel Efficiency (Kg/ATK)	18.17	18.06	18,36	16,68
Energy Intensity				
Electricity Consumption per Employee (GJ/Employee)	9,17	11.19	8,75	8,09
Electricity Consumption per Surface Area (GJ/m²)	0.45	0.64	0,49	0,42
Natural Gas Consumption per Surface Area (GJ/m²)	0.22	0.43	0,45	0,74
Total Greenhouse Gas Emissions (Tons CO ₂ e)	17,028,599	17,877,124	9,094.999	16.591.244
Category 1 Emissions	17,004.857	17,834,081	9.059.793	13.462.858
Category 2 Emissions	23,742	43,043	35.205	56.377
Category 3-4-5-6 Emissions	-	-	-	3.072.009
Greenhouse Gas Emission Savings Provided by Efficiency Projects (Ton CO ₂)	94,069	179,740	72.312	117.815

ENVIRONMENTAL PERFORMANCE	2018	2019	2020	2021
Carbon Credits Surrendered to the Authorities (tons CO ₂)	10,617	13,240	13,883*	13,968
Emission Credits Surrendered Under EU ETS	10,617	13,240	13,835	10,838
Emissions Credits Surrendered Under CH ETS	-	0	48	0
Emissions Credits Surrendered Under UK ETS	-	-	-	3,130
Passenger Flight Offset (number)	668	686	669	672
NOx Emissions (ton)	59,001	61,846	31,398	46,678
Total Water Withdrawal (m ³)	56,608	64,903	38,022	255,238
Municipal Water (m ³)	56,608	64,903	38,022	255,238
Water Withdrawal per Person (m ³ /person)	-	16.91	14.73	23.70
Waste Water Discharge (m ³) (Waste Water Channel)	-	-	-	237,418
Solid Wastes (Ton)	498	1,577	1,268.5	1,608
Recycled Non-hazardous Wastes	124	1,249	1,163	1,449
Recycled Hazardous Wastes	115	153	35.9	105
Disposed Non-hazardous Wastes	0	0	0	0
Disposed Hazardous Wastes	1.00	1.00	0.60	0.50
Recycled Packaging Wastes	258	174	69	53.50
Products with Reduced Environmental Impacts (unit)				
Forest Stewardship Council (FSC) Certified Toy Sets	2,268,000	1,647,700	0	323,925
Biodegradable and Compostable Headphone Packaging in accordance with TS EN 13432 Standard	37,698,863	37,790,212	9,872,042	16,722,548
TS EN 13432 Certified Biodegradable and Compostable Blanket Packaging	13,497,804	20,791,553	4,412,240	6,223,785

*In addition to the 13,074 emission credits declared for 2020, 809 emission credits were subsequently submitted to the authority.

ENVIRONMENTAL PERFORMANCE	2018	2019	2020	2021
OEKO-TEX 100 Certified Passenger Blankets	1,509,204	2,181,610	572,215	1,144,145
Vegan Cosmetic Sets	-	-	-	63,471
Leaks and Spills				
Total Incidents (number)	0	0	0	0
Amount of Leaks and Spills (ton)	0	0	0	0
Environmental Management Expenditure (USD)	-	8,211,709	11,477,784	8,433,014
Environmental Trainings				
Training Participants (person)	-	-	-	3,227
Company Employees	-	-	-	2,731
Contractor Employees	-	-	-	496
Training Duration (person*hour)	-	-	-	2,210
Company Employees	-	-	-	1,946
Contractor Employees	-	-	-	264
Supplier Environmental Audits				
Number of Suppliers Subjected to Environmental Audit	0	0	0	53
Number of Suppliers Audited for the First Time	0	0	0	0
Number of Suppliers Failed in Audit	0	0	0	0
Number of Suppliers whose Contract was Terminated After the Audit	0	0	0	0
Number of Suppliers Given Development Program After the Audit	0	0	0	0
Number of Suppliers Completing the Development Program	0	0	0	0
Number of GHG Awareness Training Participants	5,033	3,965	2,522	1,487
Number of Waste Management Training Participants	0	0	22,459	3,227



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EMPLOYEE DEMOGRAPHICS	2018	2019	2020	2021
Total Workforce (number)	26,739	29,491	28,668	27,532
Female	12,332	13,579	13,129	12,682
Male	14,407	15,912	15,539	14,850
Employee Category (number)				
Cockpit Crew	5,213	5,839	5,756	5,561
Female	241	297	303	296
Male	4,972	5,542	5,453	5,265
Cabin Crew	10,513	12,247	12,281	12,033
Female	7,161	8,243	8,105	7,910
Male	3,352	4,004	4,176	4,123
Technical Team - Engineer	413	402	368	353
Female	170	177	169	171
Male	243	225	199	182
Technical Team - Technician	172	203	189	152
Female	11	11	11	1
Male	161	192	178	151
Non-flight Personnel	11,013	11,405	10,631	9,938
Female	4,930	5,039	4,721	4,476
Male	6,083	6,366	5,910	5,462
Total Workforce by Contract Type (number)				
Indefinite Term Employment Contract	25,472	28,214	27,580	26,519
Female	11,756	12,999	12,640	12,232
Male	13,716	15,215	14,940	14,287
Temporary Employment Contract	1,118	1,167	1,081	1,007
Female	505	519	483	444
Male	613	648	598	563

EMPLOYEE DEMOGRAPHICS	2018	2019	2020	2021
Total Workforce by Education Level (number)				
Primary education	23	55	53	34
High school	4,443	5,024	4,486	3,997
University and Above	18,979	21,119	20,970	20,415
Total Workforce by Age Groups				
18-30	9,910	10,657	8,631	6,455
30-50	15,410	17,485	18,715	19,706
50+	1,239	1,349	1,322	1,371
Senior Management Structure (number)				
Female	54	61	59	56
18-30	1	1	0	0
30-50	50	56	56	49
50+	3	4	3	7
Male	553	564	560	528
18-30	29	13	7	1
30-50	487	510	514	487
50+	37	41	39	40
Mid-level Management Structure (number)				
Female	482	516	496	498
18-30	33	34	25	21
30-50	428	459	448	453
50+	21	23	23	24
Male	1,041	1,117	1,066	1,095
18-30	141	101	66	53
30-50	855	963	945	987
50+	45	53	55	55

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EMPLOYEE DEMOGRAPHICS		2018	2019	2020	2021
New Recruits (number)					
	Female	1.437	1.781	118	131
	Male	2.463	2.161	416	235
Employees Left (number)					
	Female	473	535	569	578
	Male	763	654	789	924
Turn Over (%) (domestic)					
	Female	4%	4%	4%	4%
	Male	6%	4%	5%	6%
Turn Over (%) (abroad)					
	Female	7%	8%	7%	9%
	Male	7%	5%	4%	6%
Employees with Disabilities					
	Female	56	60	60	57
	Male	161	175	170	155
Number of Disabled Employees in Manager Position		20	24	22	23
Workforce Under the Collective Bargaining Agreement (number)		23,015	25,513	25,054	24,307
Ratio of Female Candidates Applying for a Job (%)		41%	61%	-	-
Ratio of Female Candidates in Recruitment Interviews (%)		38%	62%	-	-
Shortlisting Rate of Candidates in the New Employment Process (%)		8%	5%	-	-
	Female	29%	57%	-	-
	Male	71%	43%	-	-
Ratio of Women Promoted During the Year (%)		50%	49%	33%	34%
Ratio of Female Employees Promoted to the Management Position for the First Time (%)		50%	50%	40%	17%

SOCIAL PERFORMANCE		2018	2019	2020	2021
Ratio of Female Employees in Income Generating Positions (%)		8	8	7	6
Ratio of Female Employees in Engineering Positions (%)		42	45	47	49
Number of Employees on Maternity/Paternity Leave					
	Female	1,063	907	823	628
	Male	791	811	531	603
Number of Employees Returning from Maternity/Paternity Leave					
	Female	906	756	677	550
	Male	792	815	534	598
Number of Employees Who Haven't Left Work for the Last 12 Months After Returning from Maternity Leave					
	Female	897	739	623	532
	Male	794	815	517	588
Number of Female Employees Benefiting from the Right to Work Part-Time After Childbirth		2	4	0	7
Number of Female Employees Benefiting from Partial Employment Right after Childbirth		32	54	61	52
Employee Trainings- Participants (number)					
	Blue Collar Employees	29,099	22,166	22,064	34,876
	White Collar Employees	87,412	135,831	153,519	136,023
	Cockpit Crew	17,135	54,930	54,968	49,088
	Cabin Crew	81,675	219,449	150,150	193,037
Accident Frequency Rate (by 1,000,000 Working Hours)		8.6	12.69	4.57	7.82
Accident Severity Rate (by 1,000,000 Working Hours)		172	123	37	63
Occupational Disease Rate (1.000.000 Çalışma Saati Bazında)		0	0	0	0
Number of Work Related Fatality		0	0	0	0



SOCIAL PERFORMANCE	2018	2019	2020	2021
OHS Trainings for Employees - Number of Participants				
Direct Employees	-	14,951	20,563	153,579
Contractor Employees	1,165	95	67	159
Number of Field Surveillance Studies (number)	-	426	204	632
Number of Physician Activities (number)	157,016	161,992	125,326	117,699
Number of Disaster Emergency Trainings (number)	20	24	10	19
Number of Disaster Emergency Training Participants (person)	273	400	145	215
Number of Disaster Emergency Drills	17	58	8	97
Number of Employees Receiving Child Care/Elderly Care Support	1,373	2,660	2,912	2,922
Number of Employees/Managers Receiving Training on Prevention of Harassment, Mobbing, Oppression and Violence				
Managers	100	20	414	122
Non-managers	5,879	4,843	21,948	6,085
Customer Satisfaction Rate (%)	79	75	77	83
Number of Employees Received Training on Human Rights Policies and Procedures				
Cockpit Crew	607	390	349	59
Cabin Crew	1,130	1,691	543	47

SOCIAL PERFORMANCE	2018	2019	2020	2021
Security Personnel	49	19	2	1
Other Ground/Support Team	1,558	1,071	396	210
Number of Business Interruptions Due to Strike (number)	0	0	0	0
Number of Non-Working Days Due to Strike (number)	0	0	0	0
Flight Safety Trainings				
Training Participants (person)	10,890	12,226	13,595	13,300
Cockpit Crew	932	1,476	2,620	936
Cabin Crew	2,634	2,992	2,528	2,432
Other Employees	7,324	7,758	8,447	9,932
Training Duration (person*hour)	16,463	27,144	15,472	22,503
Cockpit Crew	533	816	1,321	470
Cabin Crew	1,601	2,280	1,898	1,502
Other Employees	14,329	24,048	12,253	20,531
Flight Security Data				
Number of Aircraft Accidents (number)	-	-	0	0
Sanctions for Non-Compliance with Flight Safety Regulations (number)	-	-	0	0
Number of Flight Security Reports (number)	2,200	2,063	3,760	5,577
SAFA Rate (%)	0.215	0.177	0.318	0.054

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GRI Content Index


**MATERIALITY
DISCLOSURES SERVICE**

2022

Disclosures Descriptions and Page Numbers/Omissions

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GRI 102: General Disclosures 2016

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102-2	Subsidiaries and Affiliates (p.8), Brands (p.9)
102-3	Contacts (p.106)
102-4	Turkish Airlines at a Glance (p.6), Contacts (p.106)
102-5	Ownership Structure (p.5-7)
102-6	Subsidiaries and Affiliates (p.8), Brands (p.9)
102-7	Financial and Operational Performance (p.12), Fair Employer (p.86)
102-8	Performance Indicators (p.101)
102-9	Contribution of Supply Operations (p.18)
102-10	No major change has been made which may influence company's activity structure.
102-11	Risk Management (p.23), Corporate Memberships (p.42)
102-12	Corporate Memberships (p.42)
102-13	Corporate Memberships (p.42)

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102-14	Message from the Chairman of the Board of Directors (p.4-5)
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Ethics and Integrity

102-16	www.turkishairlines.com/en-tr/press-room/about-us/our-policy/index.html
102-17	Business Ethics and Code of Conduct (p.26-27)

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102-18	Corporate Governance (p.20-21)
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102-45	About the Report (p.3)
102-46	Sustainability Priorities (p.32)
102-47	Sustainability Strategy (p.33)
102-48	No restatement has been made on previously made disclosures.
102-49	Sustainability Priorities (p.32)
102-50	About the Report (p.3)
102-51	July 2021
102-52	About the Report (p.3)
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102-54	About the Report (p.3)
102-55	GRI Content Index (p.104-106)
102-56	Contacts (p.106), Reporting Guidance (p.108-109), Limited Assurance Report (p.110-111)

"For the Materiality Disclosures Service, GRI Services reviewed that the GRI Content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. This services has been performed through English version of this report."



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Material Issues

Standard	Disclosures	Descriptions and Page Numbers/Omissions
Responsible Company		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	About the Report (p.3), Sustainability Priorities (p.32), Sustainability Strategy (p.33) Data on energy consumption, water consumption, waste water, greenhouse gas emissions, waste and material use, excluding aviation fuel values, includes data obtained from operations in Türkiye.
	103-2 The management approach and its components	Sustainability Management (p.29-31), Combating the Climate Change (p.45-49), Environmental Management (p. 56-58)
	103-3 Evaluation of the management approach	Sustainability Management (p.29-31), Combating the Climate Change (p.45-49), Environmental Management (p. 56-58)
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Responsible Company (p.50, 62, 65), Performance Indicators (p.99-100)
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Responsible Company (p.50), Performance Indicators (p.99-100)
	302-2 Energy consumption outside of the organization	Responsible Company (p.50), Performance Indicators (p.99-100)
	302-3 Energy intensity	Responsible Company (p.50, 53), Performance Indicators (p.99-100)
	302-4 Reduction of energy consumption	Responsible Company (p.50, 53), Performance Indicators (p.99-100)
	302-5 Reductions in energy requirements of products and services	Responsible Company (p.50, 68), Performance Indicators (p.99-100)
GRI 303: Water and Effluents 2018	303-3 Water withdrawal	Responsible Company (p.59), Performance Indicators (p.99-100)
	303-4 Water discharge	Performance Indicators (p.99-100)
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Responsible Company (p.50), Performance Indicators (p.99-100)
	305-2 Energy indirect (Scope 2) GHG emissions	Responsible Company (p.50), Performance Indicators (p.99-100)
	305-3 Other indirect (Scope 3) GHG emissions	Responsible Company (p.50), Performance Indicators (p.99-100)

Standard	Disclosures	Descriptions and Page Numbers/Omissions
GRI 305: Emissions 2016	305-4 GHG emissions intensity	Responsible Company (p.50), Performance Indicators (p.99-100)
	305-5 Reduction of GHG emissions	Responsible Company (p.50, 53), Performance Indicators (p.99-100)
GRI 306: Waste 2020	306-3 Waste generated	Responsible Company (p.64), Performance Indicators (p.99-100)
	306-4 Waste diverted from disposal	Responsible Company (p.64), Performance Indicators (p.99-100)
	306-5 Waste directed to disposal	Responsible Company (p.64), Performance Indicators (p.99-100)
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Responsible Company (p.56), Performance Indicators (p.100)
Reliable Operator		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	About the Report (p.3), Sustainability Priorities (p.32), Sustainability Strategy (p.33)
	103-2 The management approach and its components	Sustainability Management (p.29-31), Flight Safety and Security (p.70-75), Employee Health and Safety (p.76), Business Continuity (p.79), Innovation, R&D and Digital Transformation (p.80), Customer Satisfaction (p.82)
	103-3 Evaluation of the management approach	Sustainability Management (p.29-31), Flight Safety and Security (p.70-75), Employee Health and Safety (p.76), Business Continuity (p.79), Innovation, R&D and Digital Transformation (p.80), Customer Satisfaction (p.82)
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Fleet Modernization (p.67-68), Reliable Operator (p.80-81), Performance Indicators (p.98)
	203-2 Significant indirect economic impacts	Reliable Operator (p.80-81), Performance Indicators (p.98)
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Performance Indicators (p.103)
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Reliable Operator (p.70-75, 78), Performance Indicators (p.103)

GRI-102-55

Standard	Disclosures	Descriptions and Page Numbers/Omissions
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-2 Hazard identification, risk assessment, and incident investigation	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-3 Occupational health services	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-4 Worker participation, consultation, and communication on occupational health and safety	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-5 Worker training on occupational health and safety	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-6 Promotion of worker health	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-9 Work-related injuries	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
	403-10 Work-related ill health	Reliable Operator (p.76-78), Performance Indicators (p.102-103)
Fair Employer		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	About the Report (p.3), Sustainability Priorities (p.32), Sustainability Strategy (p.33)
	103-2 The management approach and its components	Sustainability Management (p.29-31), Fair Employer (p. 86-87, 90)
	103-3 Evaluation of the management approach	Sustainability Management (p.29-31), Fair Employer (p. 86-87, 90)
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Performance Indicators (p.101-103)
	401-3 Parental leave	Performance Indicators (p.101-103)
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Fair Employer (p.91-95), Performance Indicators (p.101-103)
	404-2 Programs for upgrading employee skills and transition assistance programs	Fair Employer (p.91-95), Performance Indicators (p.101-103)
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Fair Employer (p.87-88), Performance Indicators (p.101-103)

Contacts

Any feedback we receive from you remains a source of great strength for us.

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LEGAL DISCLAIMER

Turkish Airlines Sustainability Report (Report) has been prepared by Türk Hava Yolları A.O. ("THY") in accordance with GRI (Global Reporting Initiative) Standards. All information and opinions contained in this report that do not qualify as complete are provided by THY. Aviation fuel consumption (Ton & GJ) and aviation fuel saving (ton & GJ), customer satisfaction rate (%) and accident frequency rate (%) data have undergone limited level independent assurance in accordance with ISAE 3000 (revised) Standard during the reporting process. The GHG data for 2021 have also been verified by an independent assessment organization according to the TS EN ISO 14064-3 GHG Calculation and Verification Standard. Other data disclosed in this report have not been independently verified for the purpose of this report. This report has been prepared for informational purposes only and is not intended to form the basis for any investment decision. The information contained in this report does not constitute any offer or single part of the sale of THY shares, or an invitation to such a sales process, and no such legal relationship has been established with the publication of this report. All information and related documents contained in this report at the time of preparation are believed to be correct, and the information is disclosed in good faith and is based on reliable sources. However, THY makes no representations, warranties or commitments regarding this information. Accordingly, THY or any of its subsidiaries or their board members, consultants or employees are not responsible for any information or communication transmitted within the scope of this report, or any loss or damage that a person will suffer directly or indirectly as a result of information based on or missing in this report.

GHG Verification Statement



TÜRK STANDARDLARI ENSTİTUSU

HEAD OF SURVEILLANCE AND INSPECTION CENTER

GREENHOUSE GAS VERIFICATION STATEMENT



Certificate Number	SER.006.2022/B00023																											
Report Number	SER.006.2022/R00012																											
Date of Verification Statement	17.08.2022																											
Company Title	Türk Hava Yolları Anonim Ortaklığı																											
Company Address	Yeşilköy Atatürk Hava Limanı Bakırköy/İstanbul																											
Purpose of Verification	Verifying the Greenhouse Gas Assertion of the organization which is prepared according to TS EN ISO 14064-1:2019 standard for the period 01.01.2021 - 31.12.2021 and verifying Total Greenhouse Gas Emissions which are in accordance with the requirements of the TS EN ISO 14064-3:2019 standard in Reasonable assurance level.																											
Verification Methodology	Greenhouse Gas Statement Verification is carried out in accordance with requirement of TS EN ISO 14064-3:2019 standard.																											
Techniques of Verification	Greenhouse gas information system controls and greenhouse gas data / information are evaluated by document review, site visits and recalculation methods and on the basis of the evidence of Greenhouse Gas Assertion is verified.																											
Verification Criteria	TS EN ISO 14064-1:2019																											
Verification Period	01.01.2021-31.12.2021																											
Base Year	2021																											
Organizational Boundaries	See the annex of verification statement.																											
Types of Greenhouse Gases	CO ₂ , CH ₄ , N ₂ O, HC, HFC, HCFC, SF ₆																											
Verified GHG Emissions and Removals	<table border="0"> <tr> <td>Category 1</td> <td>Direct Emissions</td> <td>13,462,857.64 tons CO₂e</td> </tr> <tr> <td>Category 2</td> <td>Energy Indirect Emissions</td> <td>56,377.41 tons CO₂e</td> </tr> <tr> <td>Category 3</td> <td>Indirect Emissions due to Transportation</td> <td>46,553.21 tons CO₂e</td> </tr> <tr> <td>Category 4</td> <td>Indirect Emissions from Products/Services of the Organization</td> <td>3,025,455.79 tons CO₂e</td> </tr> <tr> <td>Category 5</td> <td>Indirect Emissions related to use of Products</td> <td>-</td> </tr> <tr> <td>Category 6</td> <td>Other Indirect Emissions</td> <td>-</td> </tr> <tr> <td colspan="2">Emissions due to Biomass Combustion</td> <td>-</td> </tr> <tr> <td colspan="2">GHG Removals</td> <td>Not quantified by the organization</td> </tr> <tr> <td colspan="2">Carbon Credits</td> <td>10,838 tons CO₂e (Deutsche Emissionshandelsstelle)</td> </tr> </table>	Category 1	Direct Emissions	13,462,857.64 tons CO ₂ e	Category 2	Energy Indirect Emissions	56,377.41 tons CO ₂ e	Category 3	Indirect Emissions due to Transportation	46,553.21 tons CO ₂ e	Category 4	Indirect Emissions from Products/Services of the Organization	3,025,455.79 tons CO ₂ e	Category 5	Indirect Emissions related to use of Products	-	Category 6	Other Indirect Emissions	-	Emissions due to Biomass Combustion		-	GHG Removals		Not quantified by the organization	Carbon Credits		10,838 tons CO ₂ e (Deutsche Emissionshandelsstelle)
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Category 5	Indirect Emissions related to use of Products	-																										
Category 6	Other Indirect Emissions	-																										
Emissions due to Biomass Combustion		-																										
GHG Removals		Not quantified by the organization																										
Carbon Credits		10,838 tons CO ₂ e (Deutsche Emissionshandelsstelle)																										
Level of Assurance	Reasonable Assurance Level																											




Mehmet ERGUN
Director of Environmental Surveillance and Verification



<https://basvuru.tse.org.tr/uye/QRKodDogrulama?code=F21C64> You can query this address to check the accuracy and validity of the document.

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15.01.11.FR.010/02.06.2017-7



TÜRK STANDARDLARI ENSTİTUSU

HEAD OF SURVEILLANCE AND INSPECTION CENTER

GREENHOUSE GAS VERIFICATION STATEMENT

Organizational Boundaries;

Ankara Esenboğa Havalimanı İstasyonu;

- Anadoluhet Başkanlığı, Ankara Kargo Müdürlüğü, Ankara Satış Müdürlüğü, Ankara İstasyon Müdürlüğü.

Atatürk Havalimanı İstasyonu;


- AHL II. Bakım Üssü Binası – Hangarlar, AHL Kargo Trijenerasyon Birimi, AHL Kargo Binası, Atatürk Havalimanı Müşteri İlişkileri, Atatürk Havalimanı Yeni Inflight Depo, EBI Binası, Eğitim Başkanlığı, Ertin Plaza, Florya İnsan Kaynakları Değerlendirme Merkezi, Florya Uçuş Eğitim Merkezi, Florya Veri Merkezi, Harbiye Satış Müdürlüğü, İkitelli Arşiv, İkram Binası, Kadıköy Satış Müdürlüğü, K5 Servis Alanı, Levazım Depo Binası, Simülasyon Tesisi, Taksim Satış Ofisi, Teknik Yemekhane Binası, THY Genel Yönetim Binası, THY Teknoloji Binası.


İstanbul Havalimanı İstasyonu;

- Air Staff Gate Binası, B Bölgesi Enerji Yönetimi Binası, C Bölgesi Enerji Yönetimi Binası, De-icing İstasyon Binası, Kargo Hızlı Sevk Üssü, Mega Kargo, Operasyon Center Binası/Crew Terminal Ekip, Uçak İçi Ürünler Deposu, ULD Kontrol Merkezi, Uydur Kargo Binası, Terminal Binası.

İzmir Adnan Menderes Havalimanı İstasyonu;

- İzmir Satış Müdürlüğü, İzmir Kargo Müdürlüğü, İzmir İstasyon Müdürlüğü.





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Reporting Guidance

This reporting guidance (the "Guidance") provides information on the data preparation and reporting methodologies of indicators within the scope of the limited assurance in the Türk Hava Yolları Anonim Ortaklığı (the "Incorporation") Turkish Airlines 2021 Sustainability Report (the "2021 Sustainability Report").

These indicators include social indicators and environmental indicators. It is the responsibility of the Incorporation's management to ensure that appropriate procedures are in place to prepare the indicators mentioned below in line with, in all material respects, the Guidance.

The data included in this guideline is for the FY 21 (1 January – 31 December 2021), fiscal year ended 31 December 2021, and as detailed in the "Key Definitions and Reporting Scope" section comprises only the relevant operations of the Incorporation that are the responsibility of the Incorporation by excluding information about subcontractors.

General Reporting Principles

In preparing this guidance document, consideration has been given to following principles:

- Information Preparation – to highlight to users of the information the primary principles of relevance and reliability of information; and
- Information Reporting – to highlight the primary principles of comparability / consistency with other data including prior year and understandability / transparency providing clarity to users.

Key Definitions and Reporting Scope

For the purpose of this report, the Incorporation defines:

Indicator	Scope
Fuel Consumption (Aviation Fuel) (ton & GJ)	It refers to the amount of fuel purchased for all flights of the Incorporation during the reporting period.
Fuel Saving (ton & GJ)	It refers to the total fuel savings on flights during the reporting period.
Accident Frequency Rate (%)	This indicator refers to the ratio of the total number of work incidents that occurred during the reporting period to total working hours multiplied by the value of 1 million.
Customer Satisfaction Rate (%)	This indicator refers to the customer satisfaction rate obtained with the surveys conducted during the reporting period.

Data Preparation

Fuel Consumption

Within the scope of fuel consumption data, the primary fuel sources of the flights, including fuel oil, are reported. Fuel data represents the amount of fuel purchased per area and it is derived from purchase invoices. The amount of fuel supplied can be in the form of liters, USG and kilograms. Reports are prepared on a ton basis.

Below formula is used to convert the total fuel consumption from kg, which the Incorporation follow in SAP system, to GJ;

$$(Fuel\ Consumption\ in\ kg) / 1.000.000 * Net\ Calorific\ Value\ (i) * 1.000$$

(i) Net Calorific Value is obtained from "2006 IPCC Guidelines for National Greenhouse Gas Inventories" report.

Fuel Saving

Fuel saving applications are followed under 4 main titles:

- **Flight Operations Applications:** Auxiliary power unit (APU) usage optimization, engine-out taxi-in, engine-out taxi-out, reduced flap at take-off, reduced flap on landing, idle reverse on landing, monitoring the extra fuel demands, CDA (Continuous Descent Approach)
- **Technical Maintenance Practices:** Monitoring aircraft aerodynamics, APU maintenance costs, lowering spare tires.
- **Flight Planning (Dispatch) Applications:** Effective flight planning system, route optimization, alternate aerodrome selection, extra fuel planning tracking, zero fuel weight tracking, statistical taxi fuel planning, statistical APU fuel planning.
- **Ground Operations Applications:** Aircraft weight reduction, catering weight reduction, potable water loading and monitoring, CG (Center of Gravity) Optimization

Calculations are made according to 22 different fuel saving methods under 4 main applications, aircraft types and the flight rate at which the application is performed.



GRI-102-56

Reporting Guidance

For applications that provide direct fuel savings, the equation is calculated by multiplying the relevant application rate with the amount of savings per flight, monthly flight cycle and application rate. The amount of savings per application is taken from IATA's Guidance Material and Best Practices for Fuel and Environmental Management document. (Engine-out Taxi-In, Reduced Flap Take-Off etc.)

Formula:

Fuel Saving for the related application
= (Savings per flight under the relevant application) * (Monthly flight cycle) * (Application rate)

For applications that save fuel compared to the previous period, the equation is calculated by multiplying the difference between the previous period value and the current period value, the weight factor, the number of monthly flights and the monthly average flight time. Weight factor values are calculated as type based using the method in IATA's Guidance Material and Best Practices for Fuel and Environmental Management

document. (Alternate Selection, Dispatcher/ops Extra etc.)

Formula:

Fuel Saving for the related application
= (The previous period value for the related application – The current period value for the related application) * (Weight Factor) * (Monthly flight cycle) * (Average Monthly Flight Time)

Below formula is used to covert the total fuel savings from ton to GJ;

*(Fuel saving in tones) / 1.000 * Net Calorific Value (i) * 1.000*

(i) Net Calorific Value is obtained from "2006 IPCC Guidelines for National Greenhouse Gas Inventories" report.

Occupational Health and Safety Data

The following definitions and formulas are used in the calculation of occupational health and safety indicators.

In the reporting period, the incidents recorded by the Incorporation, occupational accidents, fatalities among

these accidents, and the number of employees reported as occupational diseases were evaluated.

The number of incidents, means the total number of work incidents. It was followed and calculated by accident investigation forms entered to the system and the Social Security Institution declarations.

No fatalities were encountered during the relevant period.

Total working hours, is obtained by calculating the number of premium days paid to SGK for employees subject to 4A. In this calculation, a working day is taken as 8 hours.

Formula:

Accident Frequency Rate = Number of Accidents * 1.000.000 / Total Working Hours

Customer Satisfaction Rate

It is measured by the question "Overall, how would you rate your travel experience with Turkish Airlines?" in the 13-question passenger satisfaction survey, which is located within the in-

flight entertainment systems of the aircraft.

The questionnaire is evaluated on a 5-point scale. It is calculated by using the Top 2 Box method as the ratio of the passengers who answered the question "Good" and "Very good" to all the passengers who participated in the survey. While calculating the rate, the votes of the passengers who answered "I have no idea" are not taken into account.

Formula:

Customer Satisfaction Rate = [Number of participants who answered the question "Good (4 Points)" and "Very Good (5 Points)" / The total number of passengers who participated in the survey] * 100

Restatement

The measuring and reporting of sustainability-related data inevitably involves a degree of estimation. Restatements are considered where there is a change in the data of greater than 5 percent at the Incorporation level.

Limited Assurance Report



To the Board of Directors of Türk Hava Yolları A.O.

We have been engaged by the Board of Directors of Türk Hava Yolları A.O. (the "Incorporation") to perform a limited assurance engagement in respect of the Selected Sustainability Information (the "Selected Information") stated in the Turkish Airlines 2021 Sustainability Report (the "2021 Sustainability Report") for the year ended 31 December 2021 and listed below.

Selected Information

The scope of the Selected Information for the year ended 31 December 2021, which is subject to our limited assurance work, set out in the pages 4, 48, 50, 53, 76, 84, 99, 102 and 103 of the 2021 Sustainability Report is summarised below:

- Fuel Consumption (Aviation Fuel) (ton, GJ)
- Fuel Saving (ton, GJ)
- Accident Frequency Rate (%)
- Customer Satisfaction Rate (%)

Our assurance was with respect to the year ended 31 December 2021 information only and we have not performed any procedures with respect to earlier periods or any information other than Selected Information in the 2021 Sustainability Report and, any other elements included in the 2021 Sustainability Report and, therefore, do not express any conclusion thereon.

Criteria

The criteria used by the Incorporation to prepare the Selected Information is set out in section Turkish Airlines 2021 Sustainability Report-Reporting Guidance" (the "Reporting Guidance") on pages 108 and 109 of the 2021 Sustainability Report.

The Incorporation's Responsibility

The Incorporation is responsible for the content of the 2021 Sustainability Report and the preparation of the Selected

Information in accordance with the Reporting Guidance. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Selected Information that is free from material misstatement, whether due to fraud or error.

Inherent Limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information.

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such

information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the Selected Information in the context of the Reporting Guidance.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



Our Responsibility

Our responsibility is to form a conclusion, based on limited assurance procedures, on whether anything has come to our attention that causes us to believe that the Selected Information has not been properly prepared in all material respects in accordance with the Reporting Guidance. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information', issued by the International Auditing and Assurance Standards Board.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

The procedures we performed were based on our professional judgment

and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- made inquiries of the persons responsible for the Selected Information;
- understood the process for collecting and reporting the Selected Information. This included analysing the key processes and controls for managing and reporting the Selected Information;
- evaluated the source data used to prepare the Selected Information and re-performed selected examples of calculation;
- performed limited substantive testing on a selective basis of the preparation and collation of the Selected Information prepared by the Incorporation and

- undertook analytical procedures over the reported data.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Incorporation's Selected Information for the year ended 31 December 2021, is not properly prepared, in all material respects, in accordance with the Reporting Guidance.

Restriction of use

This report, including the conclusion, has been prepared for the Board of Directors of the Incorporation as a body, to assist the Board of Directors in reporting Türk Hava Yolları A.O.'s performance and activities related to the Selected Information. We permit the disclosure of this report within the 2021 Sustainability Report for the year ended 31 December 2021, to enable the Board of Directors to demonstrate they have discharged their governance responsibilities by commissioning a

limited assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors of Türk Hava Yolları A.O. as a body and Türk Hava Yolları A.O. for our work or this report save where terms are expressly agreed and with our prior consent in writing.

PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.

Baki Erdal, SMMM
Partner

Istanbul, 11 October 2022



**TURKISH
AIRLINES**

STAR ALLIANCE 