



# LEAN & EFFICIENT OPERATIONS WITH ENVIRONMENTAL IMPACT

February 2023

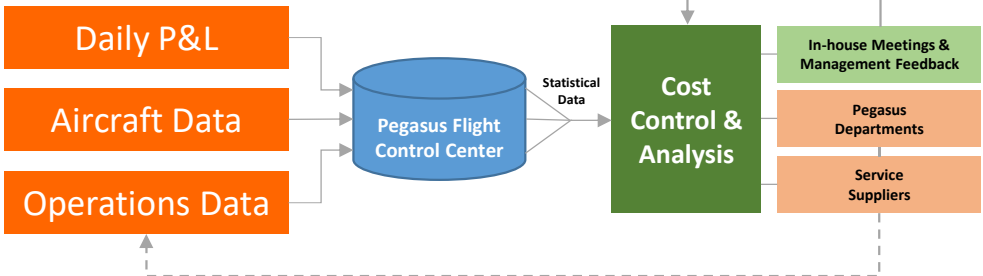
*our lowest fares are @*  
**flypgs.com** | **PEGASUS**

Genel (Public)

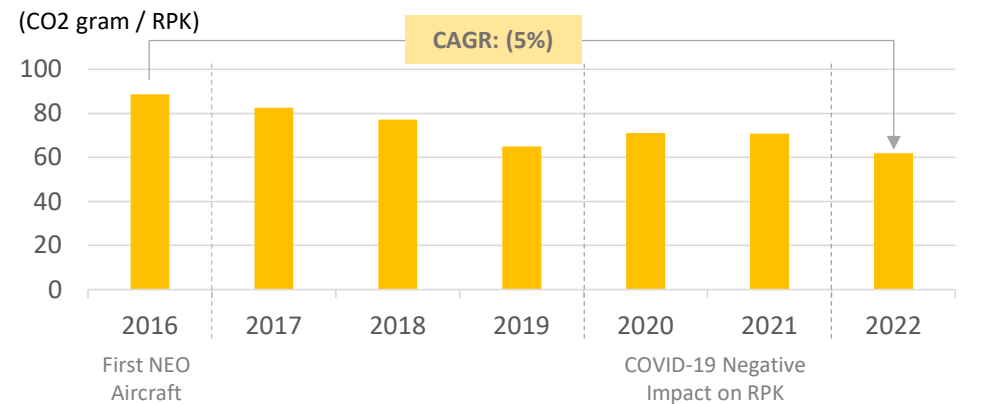
# SUCCESSFUL «BESPOKE» LCC MODEL

✈️ Strongly supported by our Board and C-level management, various initiatives spearheaded by our operational teams, coordinated by our Cost Control & Analysis Team, and enabled by our support functions, continuously drive substantial efficiency and cost savings by breaking the mold of «traditional» practices.

## The Way We Improve Lean & Efficient Operations



## Increased Fuel Efficiency & Less Emissions Intensity



## Specific Initiative Examples

- Airbus NEO Fleet Investment
- Flight Level Optimization
- Electronic Flight Bag (EFB) & Paperless Cockpit
- Auxiliary Power Unit (APU) Use Optimization
- Alternate Airport Optimization
- Flight Plan Fuel Optimization
- Aircraft Weight Reduction Initiatives
- Catering Optimization through AI
- Aircraft Exterior & Engine Washing
- Electric Vehicle Use for Ground Operations
- Airport RAMP Optimization through IoT
- Terminal Optimization Measures  
(Express Baggage Kiosks, ID Card Boarding, Check-in Optimization)



Source: Pegasus Airlines Data. RPK = Revenue Passenger Kilometers.

Genel (Public)

flypgs.com

# APPENDIX

## FLEET TRANSFORMATION AND SERVICE OFFER WITH IMPROVED ENVIRONMENTAL IMPACT

Pegasus maintains the **youngest aircraft fleet in Türkiye and runs one of the youngest fleets among all low-cost carriers globally**. Our fleet's average age was 4.4 years as of 31 December 2022.

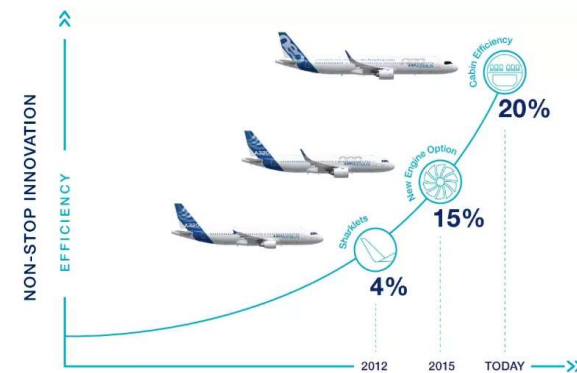
In July 2012, we placed a firm order with Airbus for 75 firm order and 25 optional Airbus A320/321neo aircraft. This was the **largest single aircraft order in Turkish civil aviation history** at the time.

Following the exercise of our option in December 2017, and several amendments and additional orders up to 2022, our 2012 Airbus Order, as amended, contained a total of **42 A320neo** and **72 A321neo** aircraft. In addition, in 2016, Pegasus became the **first customer of the CFM-Leap series engine used on A320neo aircraft**.

Significant **investment in our fleet** and ongoing **fleet transition** brings substantial advantages in reducing fuel burn. According to Airbus, the new generation neo aircraft, compared to previous generation models (Airbus A320ceo – current engine option or Boeing 737-800NG), provides **15-20% efficiency in fuel consumption and carbon emissions**.

The share of the fuel-efficient new generation Airbus neo aircraft in our fleet, in terms of total seats, **reached 65% in 2021** and **72% as of 30 September 2022**. We **expect this to reach 97% in 2025**. Aircraft seat availability is the main driver of our revenue generation and fuel-efficient Airbus neo aircraft will continue to generate a higher portion of our flight revenue. Investment in a fuel-efficient fleet and further potential fleet efficiency and advancement opportunities will help us move towards our 2030 and 2050 targets and continue to play a vital role in the early stages of our roadmap.

| Aircraft Type                                | 2018 | 2019 | 2020 | 2021 |
|--|------|------|------|------|
| Boeing 737-800                               | 46   | 39   | 34   | 25   |
| Boeing 737-400                               | 1    | -    | -    | -    |
| Airbus A320ceo                               | 12   | 12   | 12   | 11   |
| Airbus A320neo                               | 22   | 31   | 40   | 46   |
| Airbus A321neo                               | -    | 2    | 7    | 8    |
| Total  | 81   | 84   | 93   | 90   |
| Share of neo aircraft in nominal numbers (%) | 27%  | 39%  | 51%  | 60%  |



A320neo – Built-In Efficiency (Source: [Airbus](https://www.airbus.com))



# APPENDIX

## FUEL EFFICIENCY AND NOISE REDUCTION PERFORMANCE

We consider combating climate change a material issue. In this regard, we committed achieve “**Net Zero Carbon Emissions by 2050**”. One of our major focus areas is fuel efficiency since most of our emissions are caused by jet fuel burn. Our NEO-type aircraft are currently the world’s most advanced and fuel-efficient single-aisle aircraft family. The service of these innovative aircraft achieves fuel savings, **reduces carbon dioxide emissions**, and thus provides **strong operational, economic, and environmental performance**. The LEAP-1A engines found in A320 NEO & A321 NEO aircraft have a high bypass ratio of 11:1. The bypass ratio of the CFM56-5B engine in our older Airbus CEO aircraft or the CFM56-7B engine in the Boeing 737-800 models is around 5:1 and 6:1, respectively. The LEAP-1A engine offers A320-NEO and A321-NEO operators enhanced performance by **reducing fuel consumption and CO2 emissions by approximately 15%**. Pegasus is the **first customer** of the CFM-Leap series engine used on the A320neo aircraft.

We monitor our carbon dioxide emissions per revenue passenger kilometer (gram CO<sub>2</sub>/RPK) as a key performance indicator and aim to reduce this emission intensity in line with our 2030 mid-term carbon emission intensity target.

|                                  | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------------------------------|------|------|------|------|------|
| <b>Average Fleet Age (Years)</b> | 5.70 | 5.35 | 5.20 | 5.00 | 4.37 |
| <b>gram CO<sub>2</sub>/RPK</b>   | 77.2 | 64.9 | 71.1 | 70.8 | 61.9 |

On the other hand, we carry out **fuel optimization through different initiatives** in many areas, including environmental innovation. For example, we use carbon brake system on our aircraft instead of steel. Our aircraft seats are designed with lighter materials, and hence we optimize fuel consumption by reducing aircraft weight. In addition, we also optimize our engine and aircraft exterior washing in order to achieve efficiency in fuel consumption. Overall, we reduce our carbon dioxide emissions with our fuel optimization initiatives.

**Noise impact** from our operations is another focus area to improve our services. As part of our environmental innovation efforts, we carry out work to improve noise performance. Noise emissions are part of the type certification of the aircraft. Our NEO-type aircraft, constituting the majority of our fleet also have a significant impact in reducing noise, and we aim to increase our noise reduction performance.



# APPENDIX

---

## LEAN & EFFICIENT OPERATIONS

We are a **low-cost carrier** and our strong commitment to maintaining lean & efficient operations is a significant enabler for us to operate with a **low unit cost base** and **high efficiency**.

A wide range of operational initiatives which are strongly supported by our Board and C-level management spearheaded by our operational teams, coordinated by our Cost Control & Analysis Team, and enabled by our support functions, continuously drive substantial efficiency and cost savings by breaking the mold of “traditional” practices. Our specific initiatives are shaped by our **Digital Airline promise** and **our environmental targets**.

These are significant enablers for our sustainability efforts. In 2021, our R&D expenditure for these initiatives was ₹482K. This value covered non-regulatory fuel efficiency R&D costs.

## CHANGE IN FOCUS : OUR APPROACH TO CABIN PRODUCT OFFER & WASTE MANAGEMENT

The **interplay between operational efficiency and environmental efficiency** is striking for airline operations. Operational efficiency mostly serves the environment positively, triggering more **efficient use of resources and less waste**. The time commitments of operational efficiency on the other hand may pressure on environmental sensitivities, especially when aircraft utilization and punctual operational performance requires quick turn-around of aircraft on the ground thereby limiting time to address less-time sensitive needs.

In flight catering is an evident example of this. For years, our catering offer, the Pegasus Cafe, was tailored as an **on demand ancillary service**. Above and beyond the revenue impact of this ancillary service, the optimization benefits unlocked by **demand-based consumption** not only helped us **reduce waste** but also helped us **optimize aircraft weight, fuel burn and punctuality performance**. We went on to achieve further **efficiency through an AI-based optimization**.

In the past two years, we have been implementing **new initiatives to transform certain components of our Pegasus Cafe product offer** to reduce waste and to move towards the use of more sustainable material with less stress on the environment. Our efforts will continue into 2023 and beyond to achieve further improvement in this area.



# DISCLAIMER

---

This document is prepared by Pegasus Hava Tařımacılıđı Anonim Őirketi (“**Pegasus**”) in accordance with the Pegasus Information Policy. The information covered in this document may be based on Pegasus corporate records, its own internal research and estimates based on the knowledge and experience of the markets in which it operates, or industry, market and similar data procured from third parties as indicated in the document. While Pegasus believes that third party data has been obtained from reputable sources it does not independently verify such data or commit to any undertakings regarding the completeness or accurateness of such data or such data not being misleading.

The data contained in this document aims to inform intended recipients of the operational results, targets and expectations of Pegasus in a correct and transparent manner and on equal terms and does not intend any investment advice or any offer or solicitation in connection with securities issued by Pegasus. Investors must make their investment decisions based on all other information, events and circumstances available through different channels and that may affect their investment decisions.

Investor communication prepared by Pegasus may contain forward-looking statements, including targets or expectations. These forward-looking statements may be disclosed as targets or expectations or through expressions such as “anticipate”, “believe”, “estimate” or “expect” or using the future tense. Forward-looking statements may relate to the operational and financial performance of Pegasus, its growth and strategies or future plans and targets of Pegasus Management. Forward-looking statements relate to matters that have not yet realized. While forward-looking statements are based on reasonable assumptions and estimates, such statements are prone to uncertainty and risks and such statements reflect the targets and expectations valid as of the date of announcement. Many factors could cause the actual results to be materially different from targets and expectations expressed by such forward-looking statements.

In the absence of any legal obligations arising from the applicable capital markets law, Pegasus does not undertake to update, keep up-to-date or to periodically review the information contained herein, including any forward-looking statements. By using this document for any purpose, you are deemed to have read, understood and accepted the warnings stated in this disclaimer.



We didn't start aviation in Turkey but  
we transformed it!



*Thank you*