

# **MRO OPPORTUNITIES IN ASIA**



**MR MICHAEL HICKEY**

# Introduction



Chief Operations Officer of Vietjet.

Started in Aviation in 1979

30 years with Ryan Air, started as Mechanic and finished as COO.

Worked with VJ since 2018 as a Consultant and appointed as COO in June 2022.

MJH Aviation – an aviation consultancy firm providing specialized expertise to the MRO, airline and leasing community

# About Vietjet

- Founding in 2007
- 1st flight Dec 2011
- VJ ops 82 A/c (75 x A320/A321 & 7x A330) & 31m pax
- VJ ops 75 Intl & 45 Dom routes
- Thai Vietjet ops 18x A320 and 7m pax.
- O/S orders for 200 Boeing MAX & 100+ Airbus narrow-body.

Source: Vietjet Annual Report

**vietjet** Air.com

## Vietjet, Boeing finalize aircraft delivery plan during U.S. President Joe Biden's visit to Vietnam

During the visit of President Joe Biden to Vietnam, Vietjet and Boeing have reached high-level agreements between them.

The contract to purchase 200 Boeing aircraft followed by the orders and air operations, the Boeing performance the contract.

### Vietjet, Boeing sign deal for 200 aircraft as part of airline's global strategy

### VietJetAir to add more than 100 Airbus single aisle aircrafts

(25 Sep 2013, Montignion Castle in Paris) VietJetAir has signed a memorandum of understanding (MoU) with the world's leading aircraft manufacturer Airbus for an order of 100 aircraft of different types. (The order includes the purchase of 92 A320 family aircraft and the lease of eight more from third party lessors).

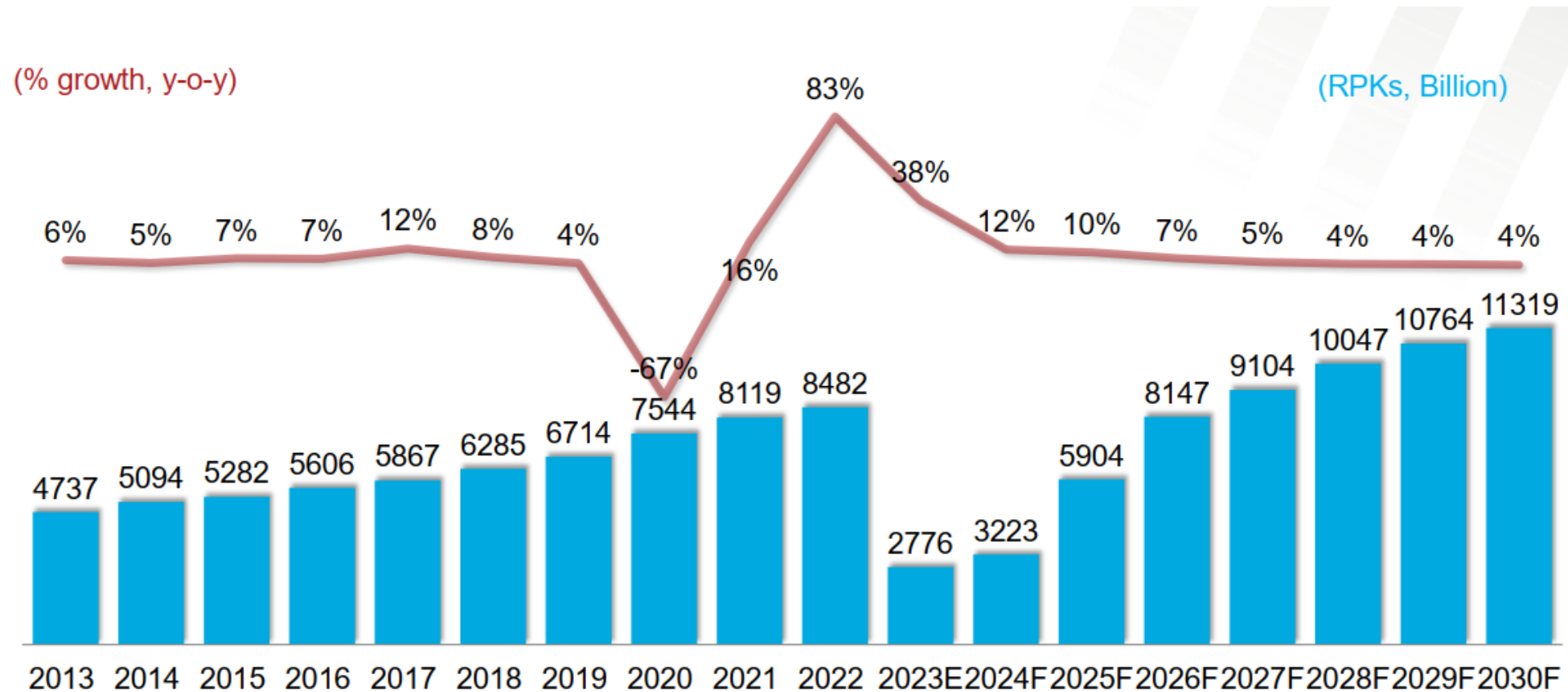
# Aviation Industry Outlook PC

- ✓ Aviation recovery post covid has been uneven and region-specific.
- ✓ Financial support in Europe and USA not replicated everywhere
- ✓ According to the IATA, the aviation industry has realized a loss of just over \$200 billion between 2020 – 2022.
- ✓ **But.....**



# Aviation Industry Outlook Future is looking brighter

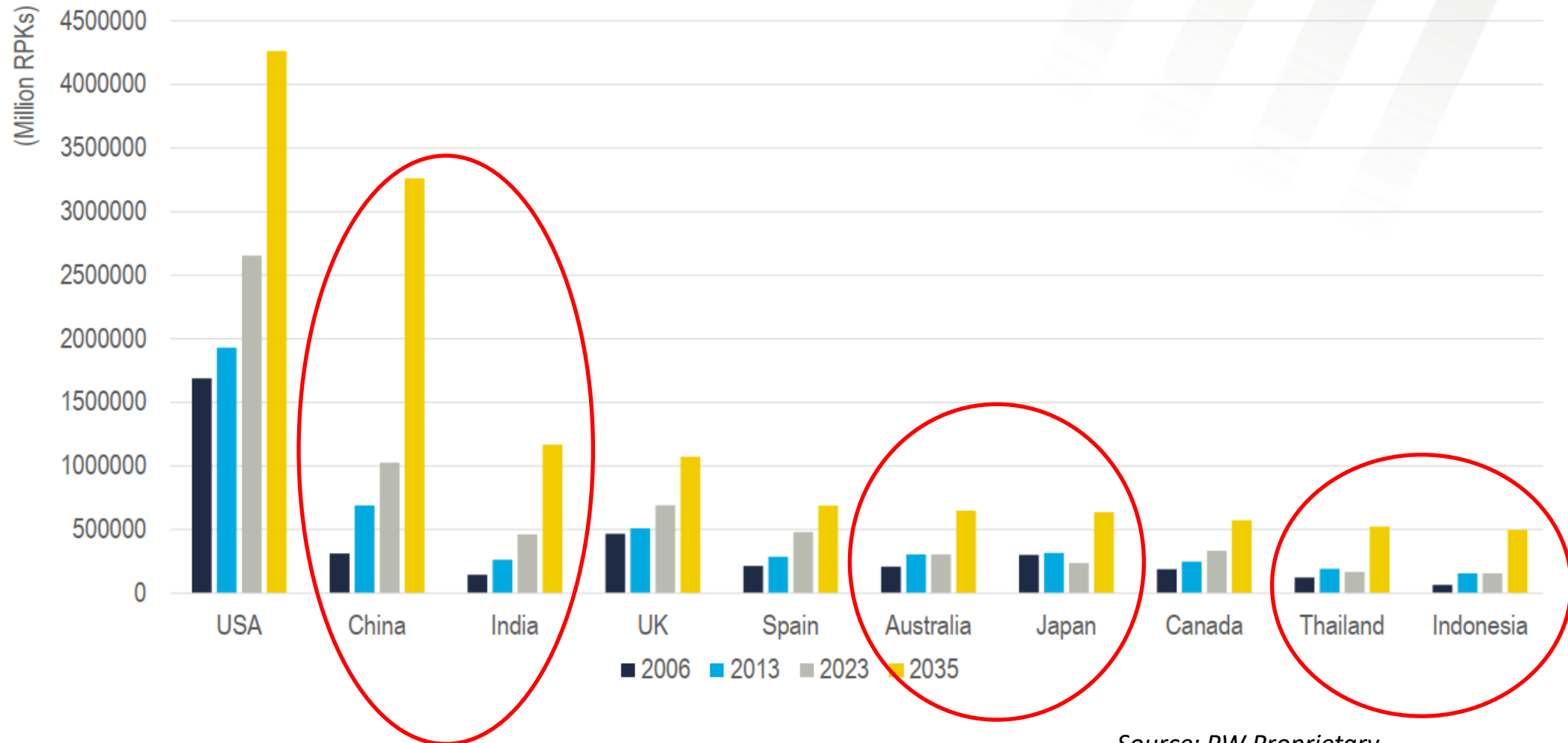
## 2023 IATA WORLD TRAFFIC OUTLOOK



Source: IATA, ICAO

# Aviation Industry Outlook

## TRAFFIC GROWTH STRONGEST IN LARGE ASIAN COUNTRIES TOP GROWTH MARKETS THROUGH 2035



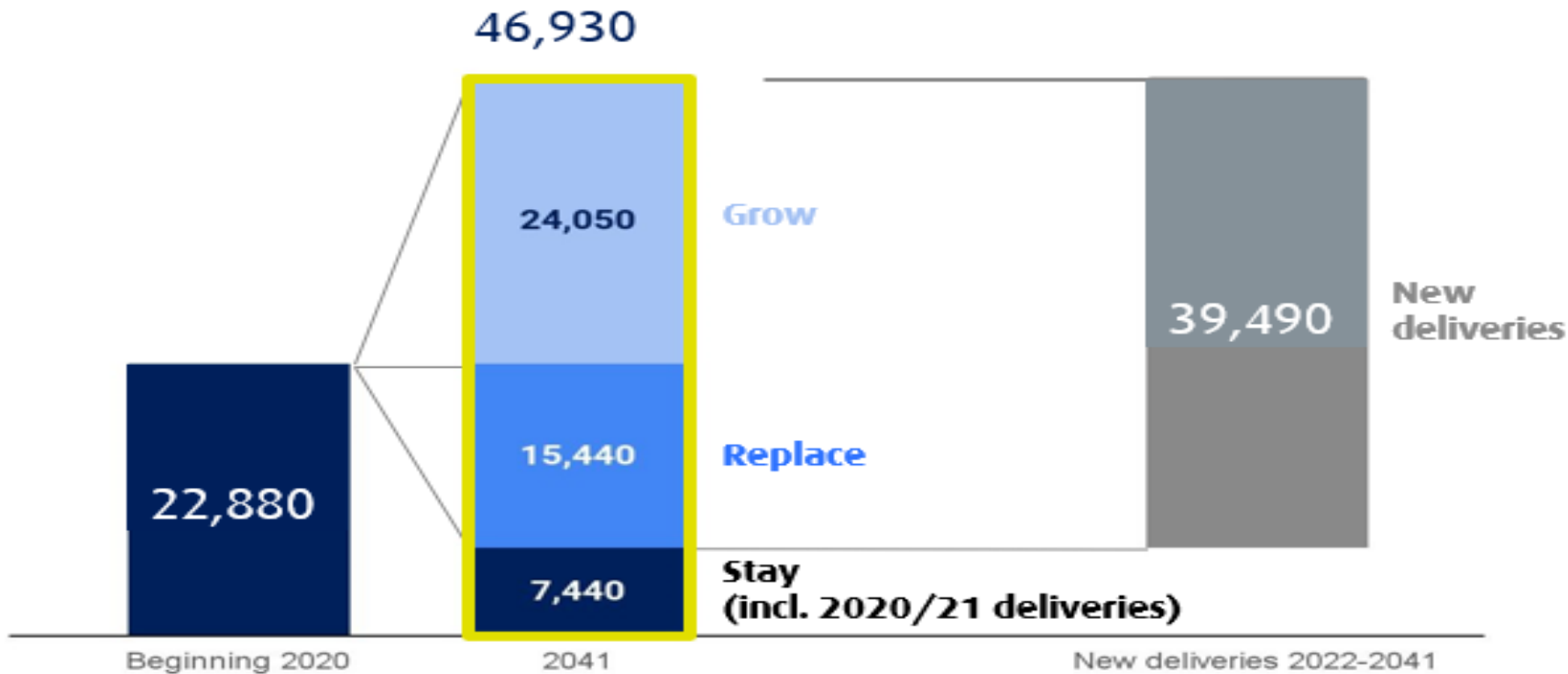
Source: PW Proprietary

# Aviation Industry Outlook

2022 - 2041

Almost 47,000 in service aircraft in 2041

## Number of aircraft



Source: Airbus GMF Notes:  
Passenger aircraft above 100  
seats & freighters with a payload  
above 10t

# Aviation Industry Outlook

In **2041**, the commercial services demand in some figures...

**1,100+**

DISMANTLED &  
**RECYCLED**  
AIRCRAFT



**5,000+**  
**HEAVY CHECKS**

& **7,000+** Engines checks



**440,000**

Daily **FLIGHT HOURS**



**8,000,000**

Hours required  
**IN SIMULATORS**



**\$125Bn**  
Material



**46,900+**

The number of aircraft to support  
**>95% new generation pax aircraft**



**2,200 CABINS** UPGRADED  
OR REFURBISHED

75% Single Aisle | 25% Wide Body



**4 times more** aircraft with  
**INFLIGHT CONNECTIVITY**  
for passengers

Source: Boeing Proprietary



# Aviation Industry Outlook

- ✓ **Boeing predicts the market for support and services for commercial services to be worth \$1.8 trillion (include business and general aviation markets)**
- ✓ **In the next 20 years, there will be a need for 37,000 new technicians, 37,000 new pilots, 44,000 new cabin crews.**

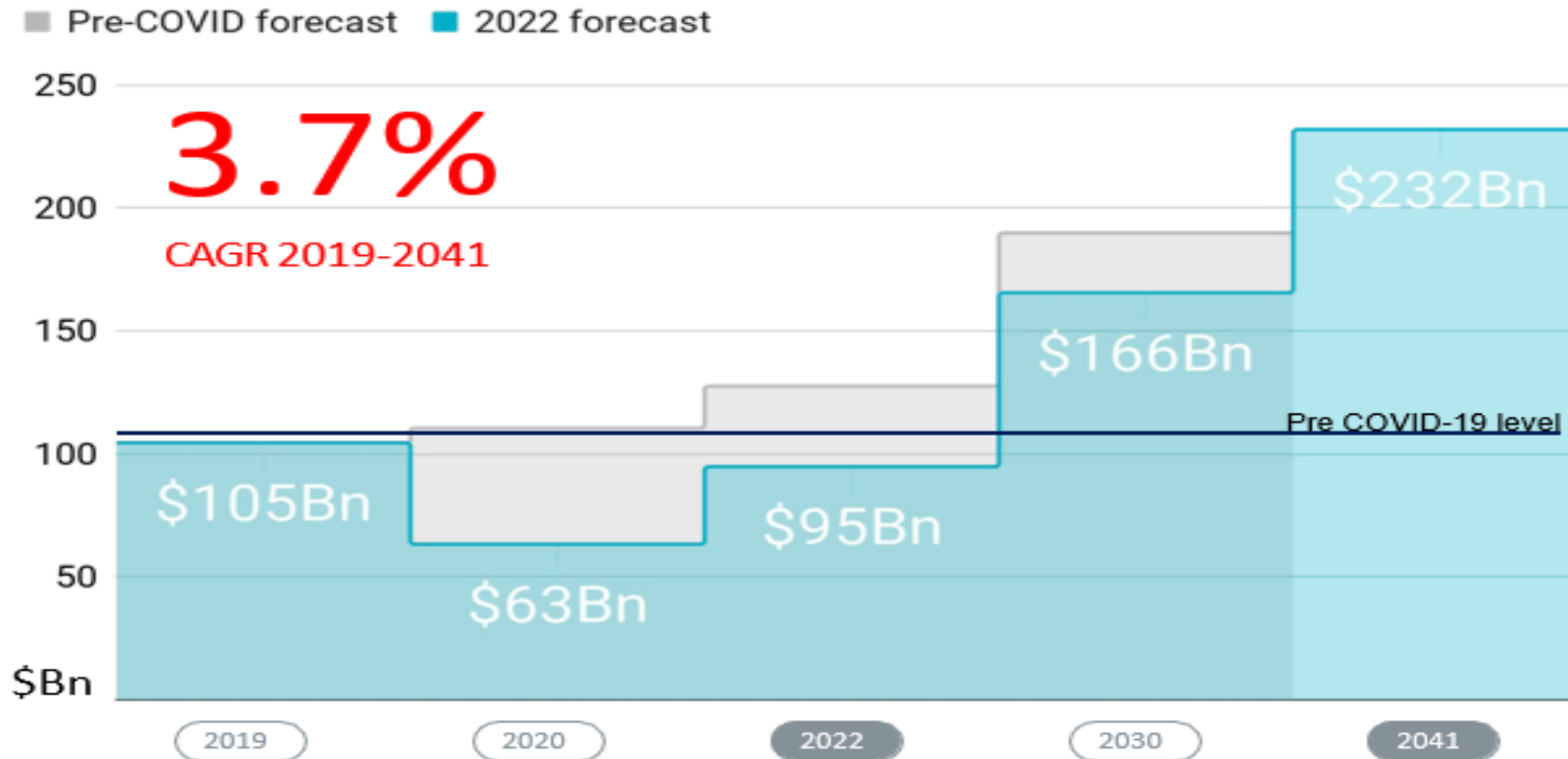


*Source: Boeing Proprietary*

# Aviation Industry Outlook

2022 - 2041

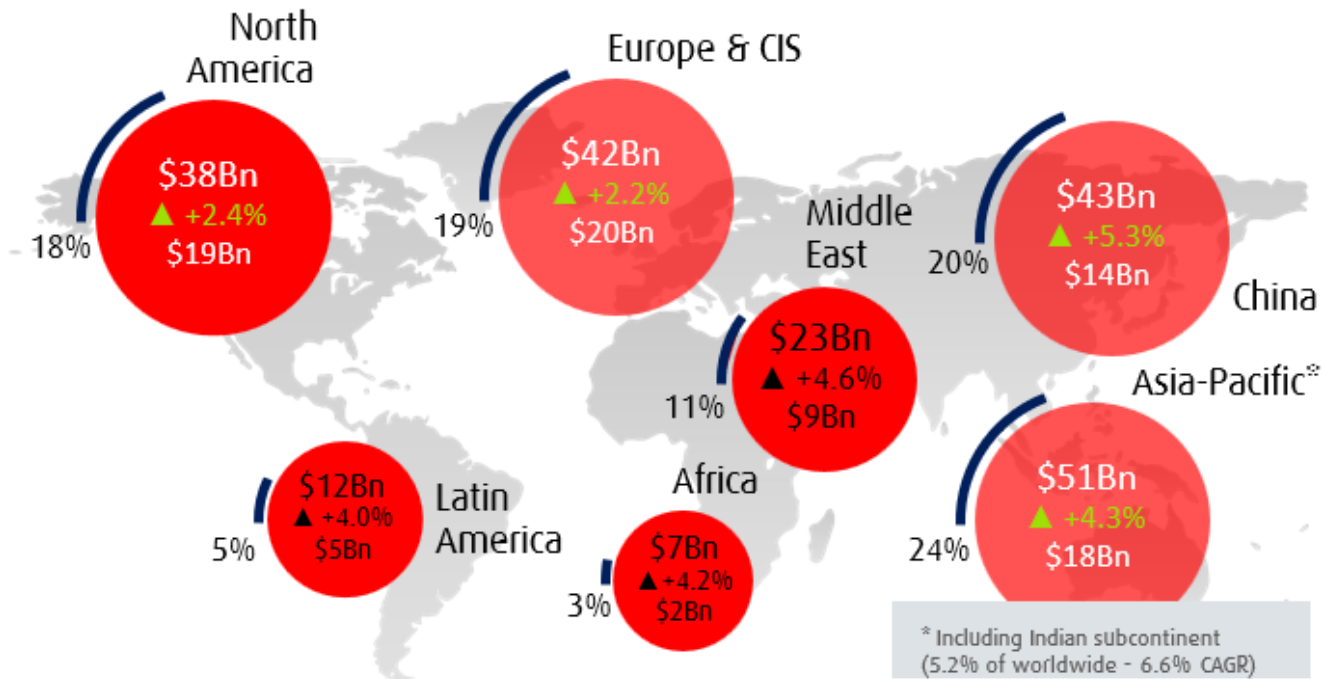
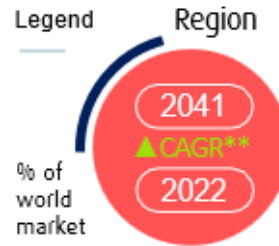
Services market to  
**more than double in value by 2041**



Source: Airbus Global  
Services Forecast 2022-  
2041

# Aviation Industry Outlook

MAINTAIN & ENHANCE  
 Aftermarket demand evolution per region



**Asia-Pacific** (with India) will become the largest market for services by 2041

Steady growth for mature markets

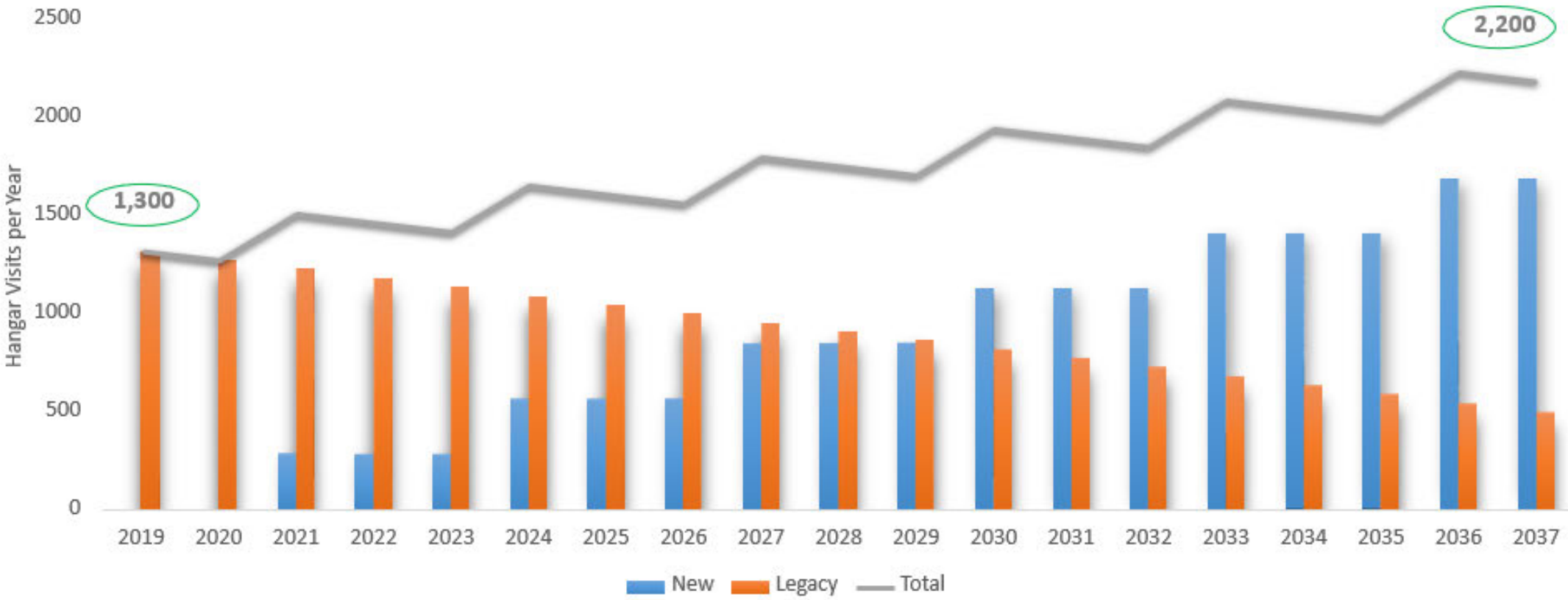
Source: Airbus GFM

# The Worldwide MRO Business

- Single-aisle airplanes will generate highest MRO demand
- Asia-Pacific (AP) will be the fastest-growing aviation region of the world

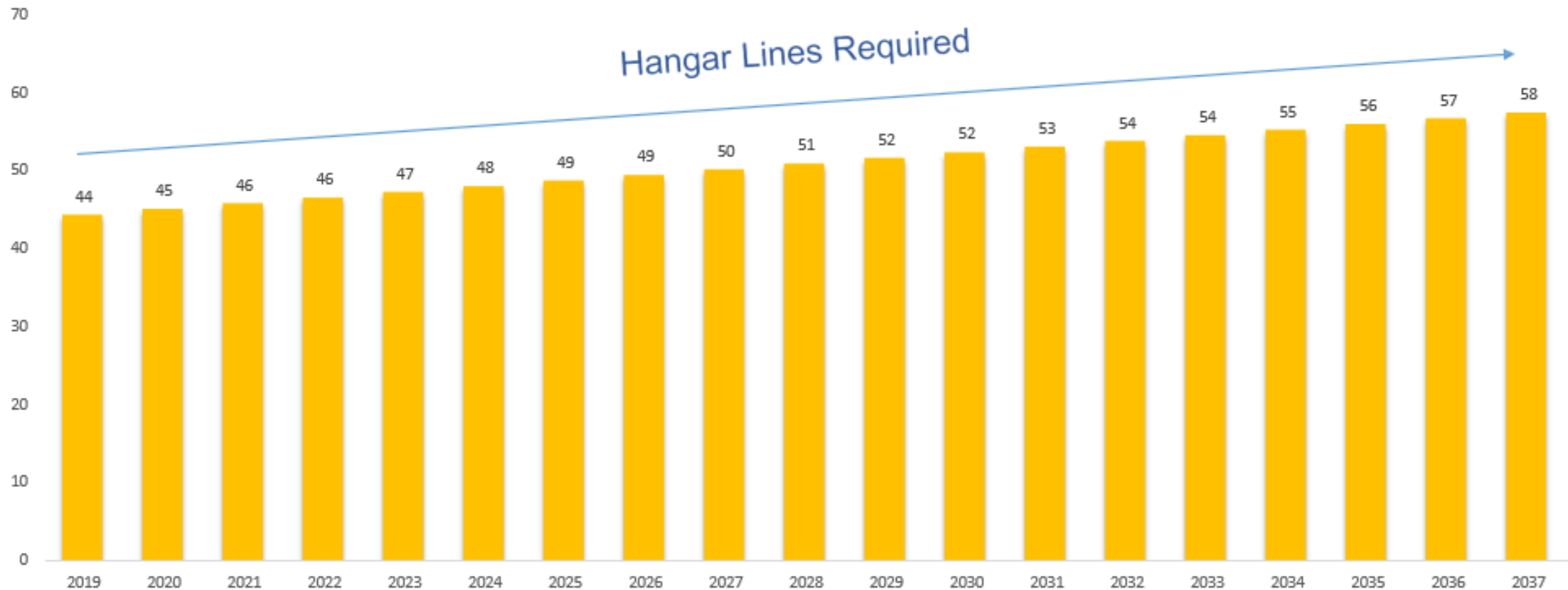


# Asia-Pacific 737 Maintenance Hangar Visits 2019-2037



Source: Boeing Proprietary

# 737 Heavy Check Capacity Requirement Asia Pacific 2018-2037



Source: Boeing Proprietary

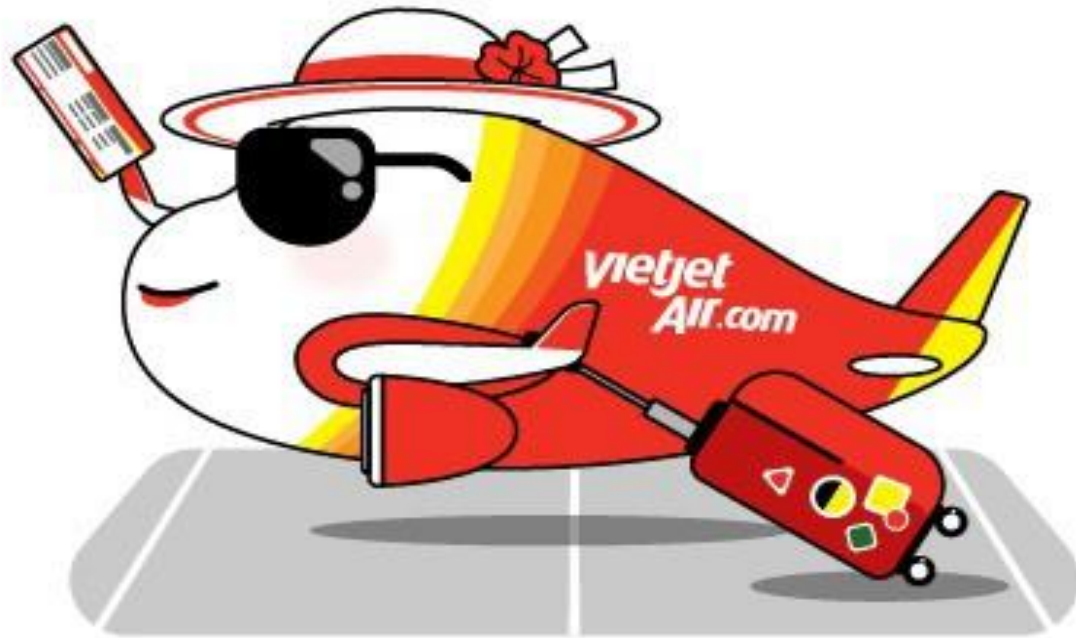
# Asia Pacific MRO Market Dynamics



Source: Boeing Proprietary

- The major players in the MRO market will continue to invest in the Asia Pacific
- New regional MRO suppliers will emerge
- The opportunity for airline-affiliated MROs will be significant in the Region
- The supply of MRO providers globally will continue to grow and adjust to meet demand.
- *Lack of capacity in the region could cause some airlines to seek services in other regions and potentially tie up long-term service agreements that will challenge MRO's in the region to win the business back.*

# What should VJ do now



- Continue to outsource
- Develop its own MRO
- Own fleet only or 3<sup>rd</sup> party
- JV with a recognized partner?
- Set up as stand alone



## Key areas when choosing an MRO

- Quality
- Cost
- Turntime
- Location
- Relationships



# The Worldwide MRO Business

- Airlines generally need a fleet size of approximately 40-50 airplanes to justify a single production line for hangar maintenance and 200 annual shop visits to justify an engine line.
- The ideal time for an airlines to consider an MRO strategy is during fleet renewal.



Source: Boeing Proprietary

# MRO Investment Opportunity

## How much will it cost?



### **Initial Investment**

- ✓ Start of MRO Operations - \$10-15M and climbing
- ✓ MRO Education Center - \$5M
  - Initial Training for new technicians
  - Recurrent Training for all staff
  - Potential National Education Center

# Challenges

- **Is the MRO part of the airline or stand alone.**
- **Who reports to who?**
- **Do T&C's in the airline automatically txfr to the MRO**
- **Leveraging the expertise of the airline ie Legal/Fin/ HR/ IT.**
- **Ensuring a low ratio of office to hands on staff.**
- **Where do the experienced staff come from**

# Challenges

- **Competition for work and staff**
- **Availability of Skilled Labor.**
- **Retaining the people you have trained.**
- **Loss of labor cost advantage over time**
- **Making sure the w/shops you invest in today will still make sense in 20 yrs**
- **How do you stop it becoming a monster?**

# Challenges

- Will the Govt provide incentives and ***assistance for facilitie***
- Facilitate ***importation of controlled technology*** and intellectual property
- Ensure trade controls do not inhibit available markets
- Will the relationship with the OEM allow for purchase of repair materials and licenses for the use of intellectual property including repair manuals, processes, standards, tooling drawings and other support documentation.

## SO WHY DO IT?

- **Lower costs and turn time**
- **Create High-skill jobs**
- **Development of an aviation ecosystem in Asia Pacific**
- **Improved Industrial Capabilities**
- **Infrastructure Advancement**
- **Value Creation**
- **Local Jobs Economic Benefit**
- **GDP Growth Contributor**

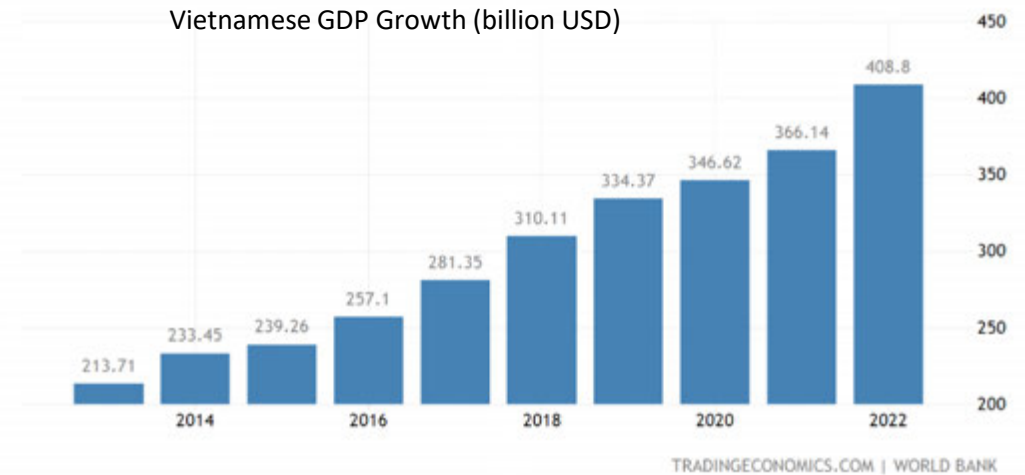
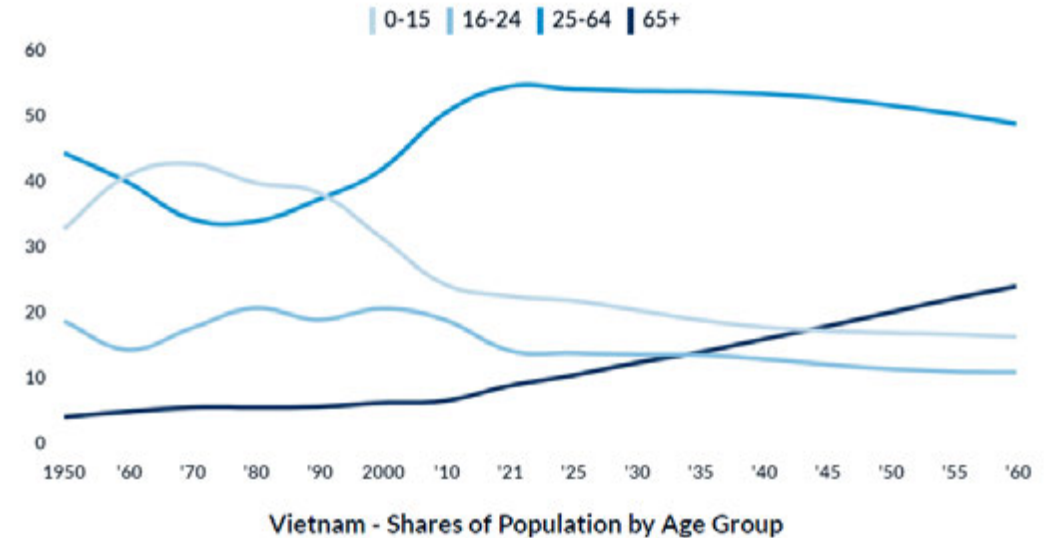
# Opportunities for success in VN

## ***Vietnam:***

- 67% of 96M population are of working-age.
- GDP growth in Vietnam was 8% in 2022 in total worth 408.80 billion US dollars in 2022 (World Bank)
- Govt supports need for additional airport infrastructure
- 8 new airports and dual usage of 2 military airports by 2030

## ***Vietjet (Annual report 2022)***

- 6000 staffs in which 80% have college/university degree and above, in which 15% of labor is foreigner
- VJAA be one of the largest aviation training centers in Vietnam and the region.



***vietjet*** **air.com**

Source: Vietjet Annual Report 2022



# SUMMARY

- **Growth in commercial aviation in AP over the next 20 years will bring significant demands for airplane maintenance service.**
- **Even with newer technology airplanes the fleet expansions alone will push demand beyond the current capacity in the Region.**
- **Airlines in AP have an opportunity to establish and grow MRO services to meet the bow wave of demand.**
- **But everyone knows this & the ground floor can quickly become crowded**
- **Later entrants to the MRO business will find an increasing challenge to establish a profitable operation.**

This is why VJ plans to open its  
own 3<sup>rd</sup> Party MRO





**THANK YOU!!!**

**vietjet Air.com**