



# NAFCO Investor Conference

2022.11.18



豐達科技股份有限公司

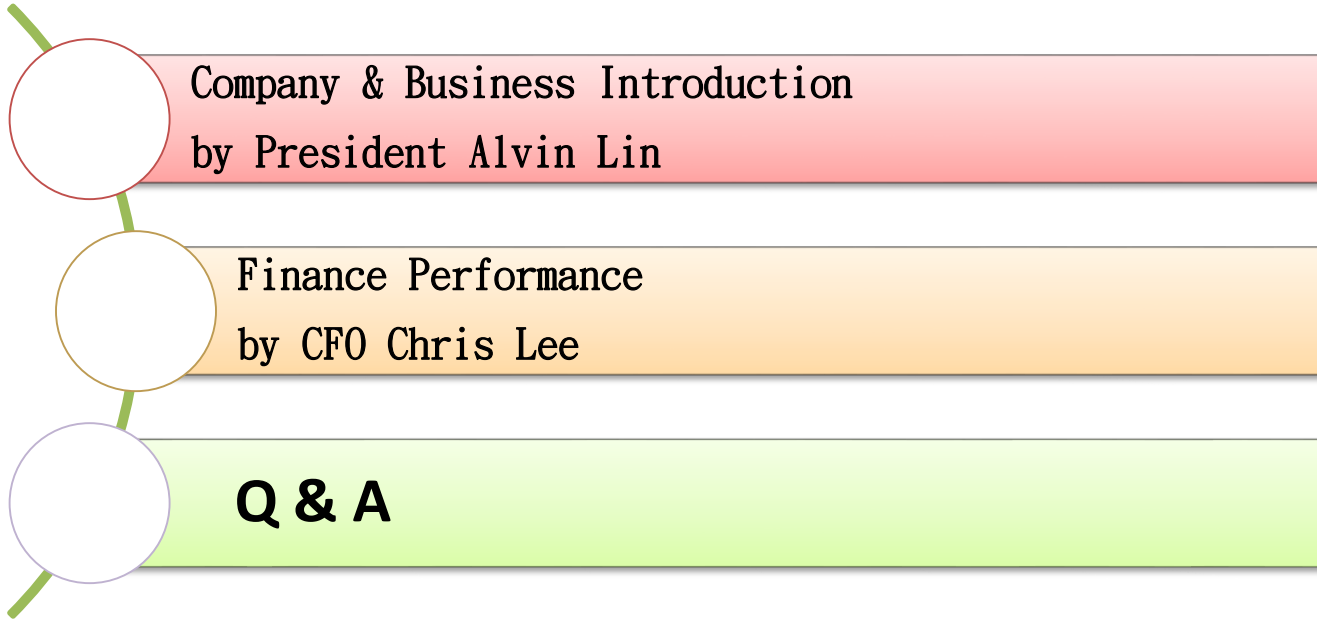
National Aerospace Fasteners Corporation

# Disclaimer

- This presentation and release contain “forward -looking statements” which may include projections of future results of operations, financial condition or business prospects based on our own information and other sources.
- Our actual results of operations, financial condition or business prospects may differ from those expressed or implied in these forward-looking statements for a variety of reasons, including but not limited to market demand, price fluctuations, competition, international economic conditions, supply chain issues, exchange rate fluctuations and other risks and factors beyond our control.
- The financial information contained here within is presented in conformity with International Financial Reporting Standards(IFRSs).
- The forward-looking statements in this release reflect the current belief of NAFCO as of the date of this release. NAFCO undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such date.



# Agenda

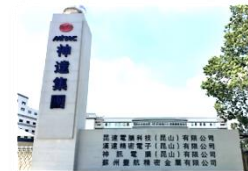


# Company & Business Introduction

President Alvin Lin



## Production Sites



Taoyuan, Taiwan : Land 45,000 m<sup>2</sup> / Floor space : 46,700 m<sup>2</sup>

Kunshan, China: Floor space 15,400 m<sup>2</sup>

## Company Profile

**Founded : October 14, 1997**

**IPO : 2002**

**Capital: TWD 520 million**

**Major shareholder: Getac ( Since 2007 )**

**Employees: 659**

**2021 Revenue: TWD 1.426 billion**

**Main Products: aerospace fasteners,  
aerospace machining parts and  
automotive fasteners**



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National Aerospace Fasteners Corporation

# Customers & Partners



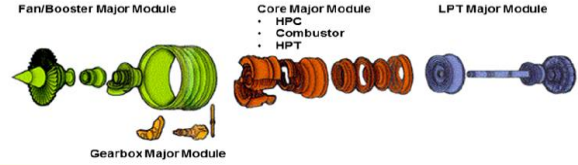
# Aviation product Application



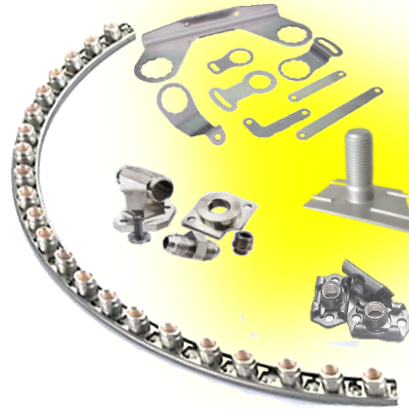
Flight Control



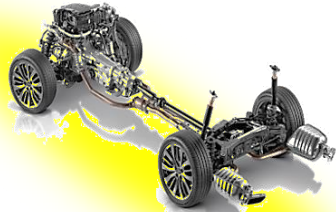
Engine



Landing System



# Industrial Product Application



Chassis



Body



Door



Air Conditioning

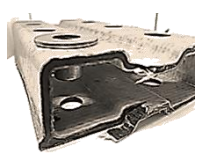
EV battery box

Dashboard/Panel



Intake manifold

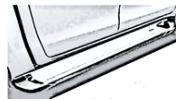
Composite structure



Bumper



Side Step



Front-end module

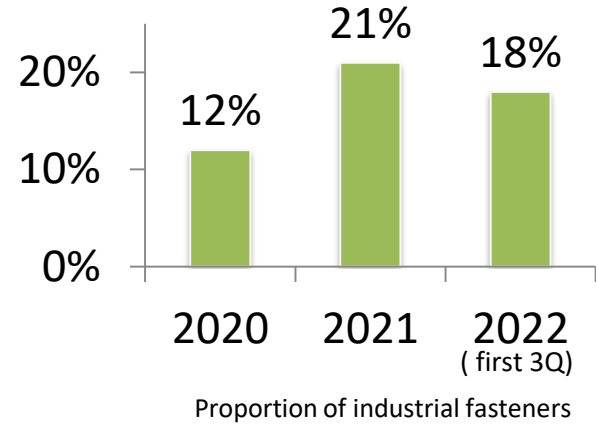
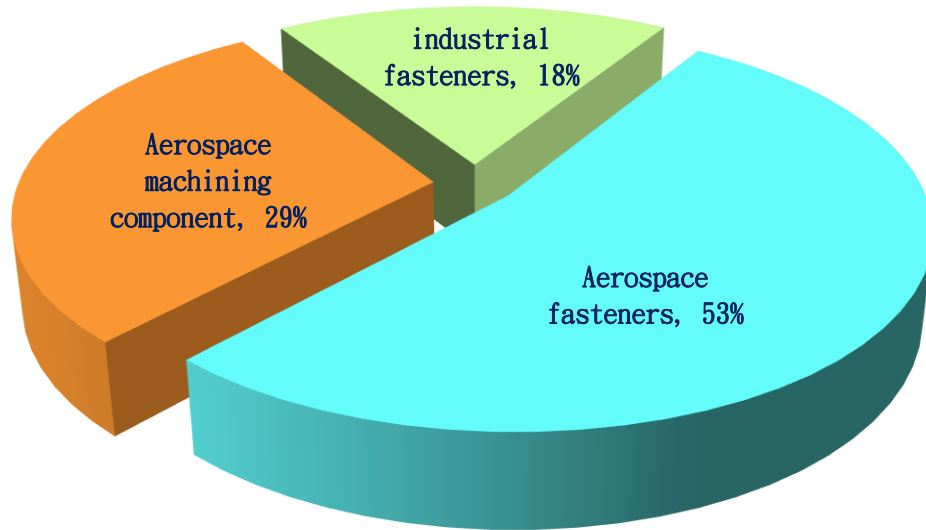


High temp components



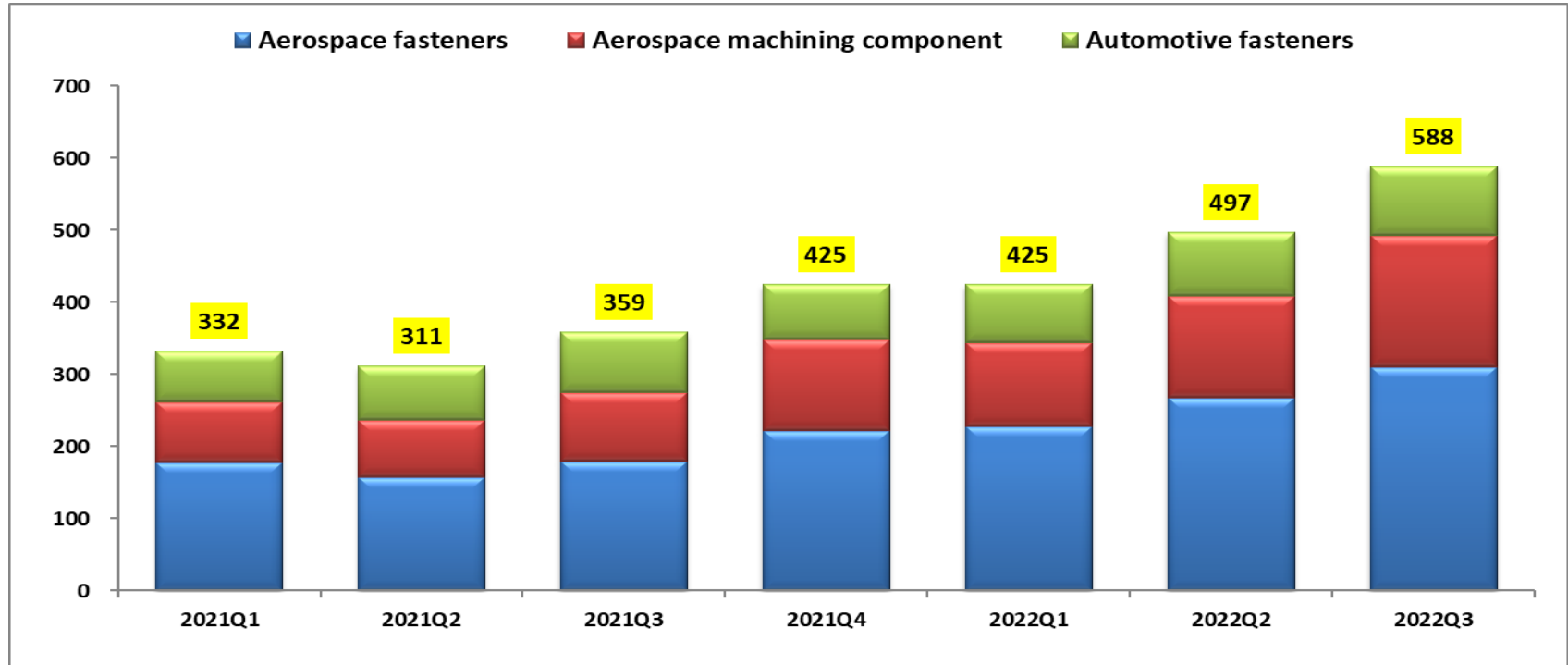


# Sales by Product



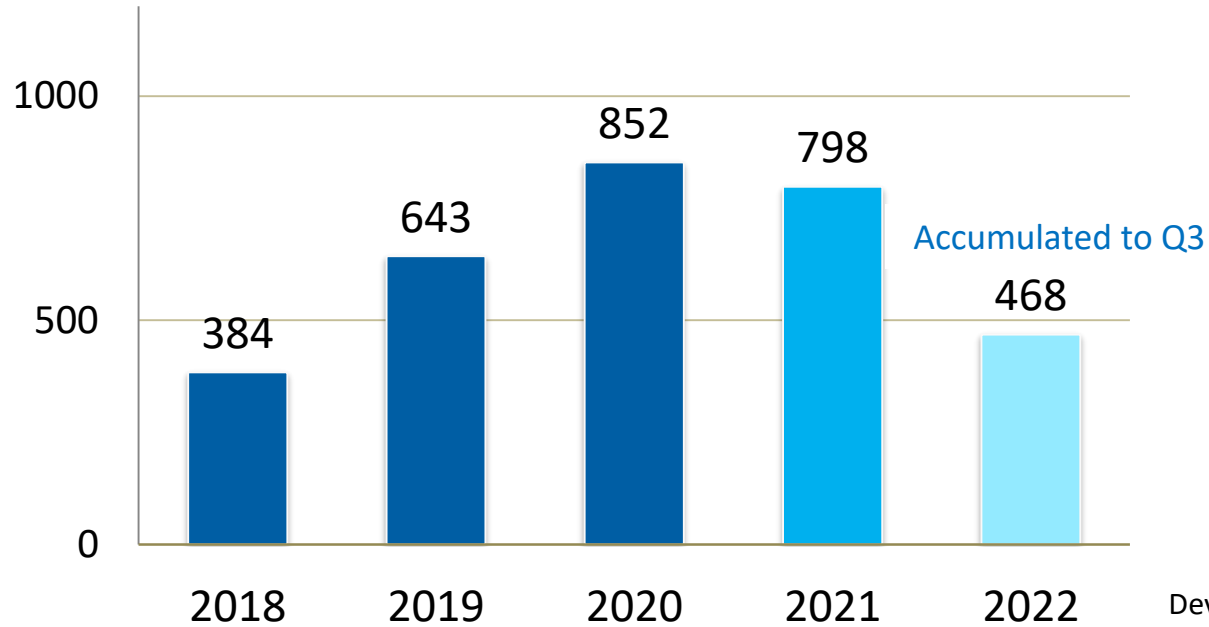
# 2021Q1~2022Q3 Quarterly Revenue Trend

Unit : NT\$ Million



# Business Development

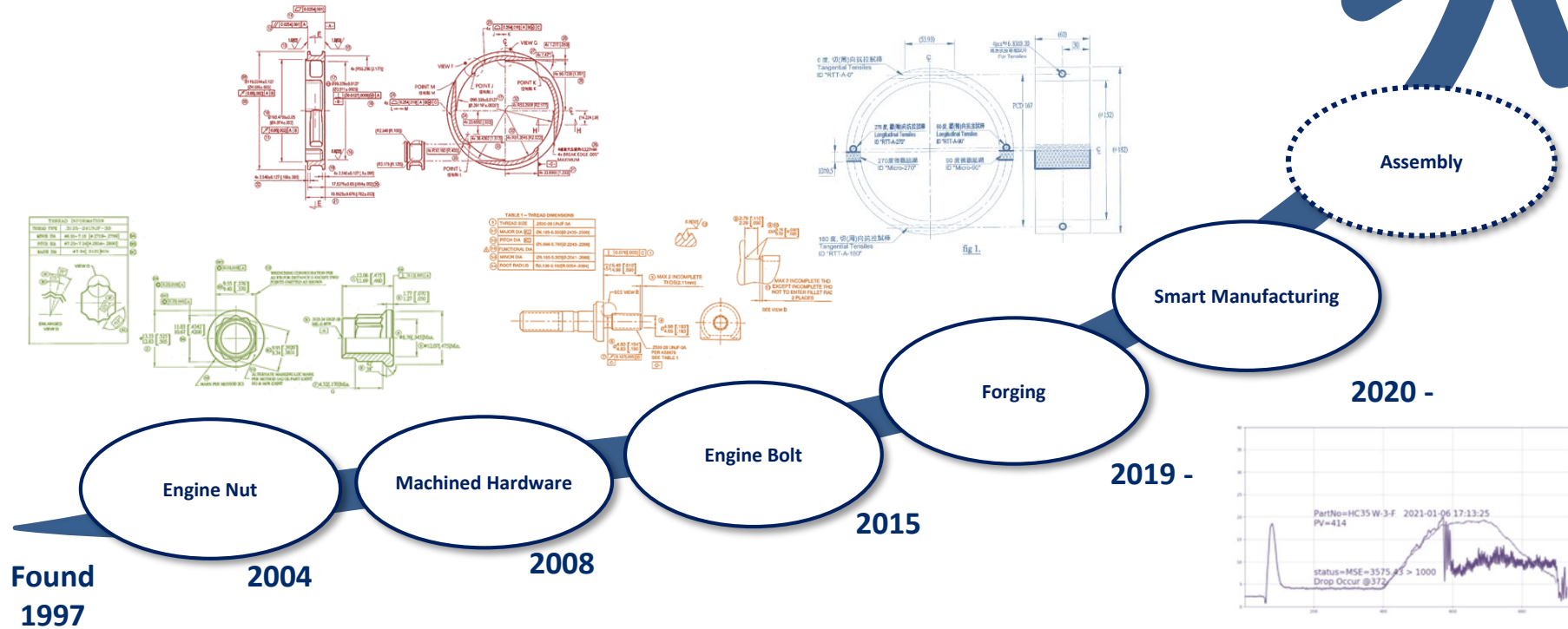
Number of new product introduction



Develop new series of fasteners to expand product portfolio



# Technology & Product Roadmap



Found  
1997

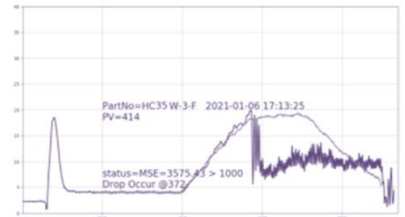
2004

2008

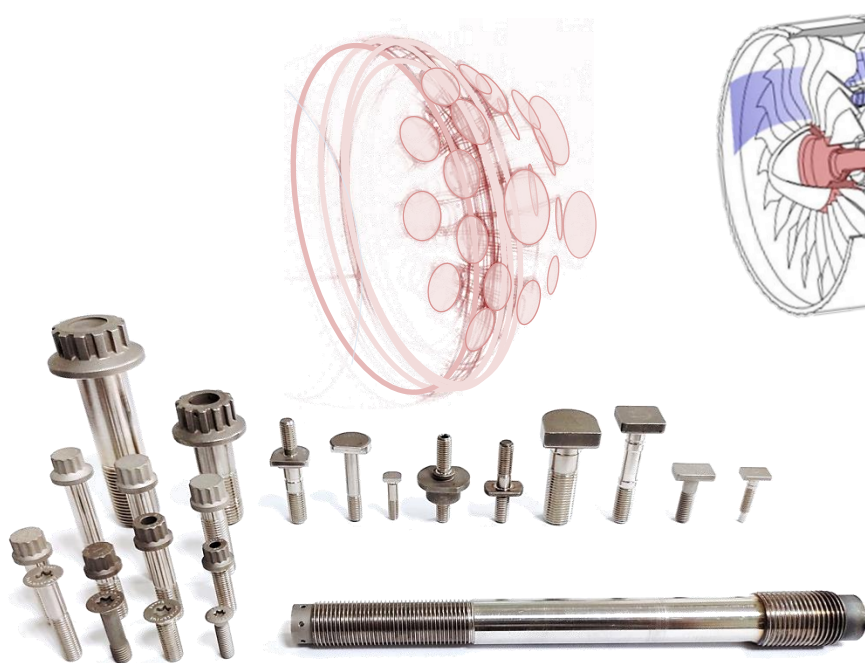
2015

2019 -

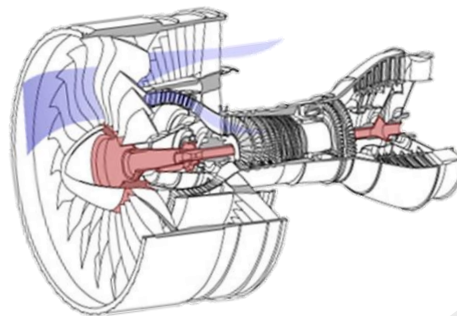
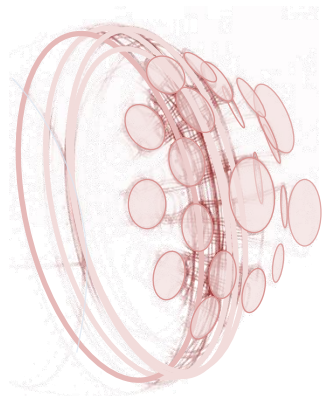
2020 -



# High-performance Aerospace Bolt series



Superalloy bolts for aerospace engines



Bolt shank with grooves  
Continue to deepen Machining Capabilities

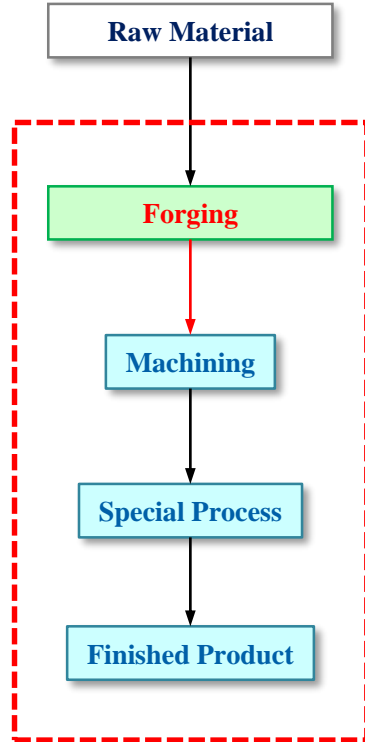


Different head type bolts for specific applications  
Continue to develop aerospace bolt forging ability



# Approved Forging Source

Strengthen the production value chain



3000tons Forging press for commercial aviation products

Since 2019



• NADCAP MMM

28 juillet 2021



Safran approved forging source

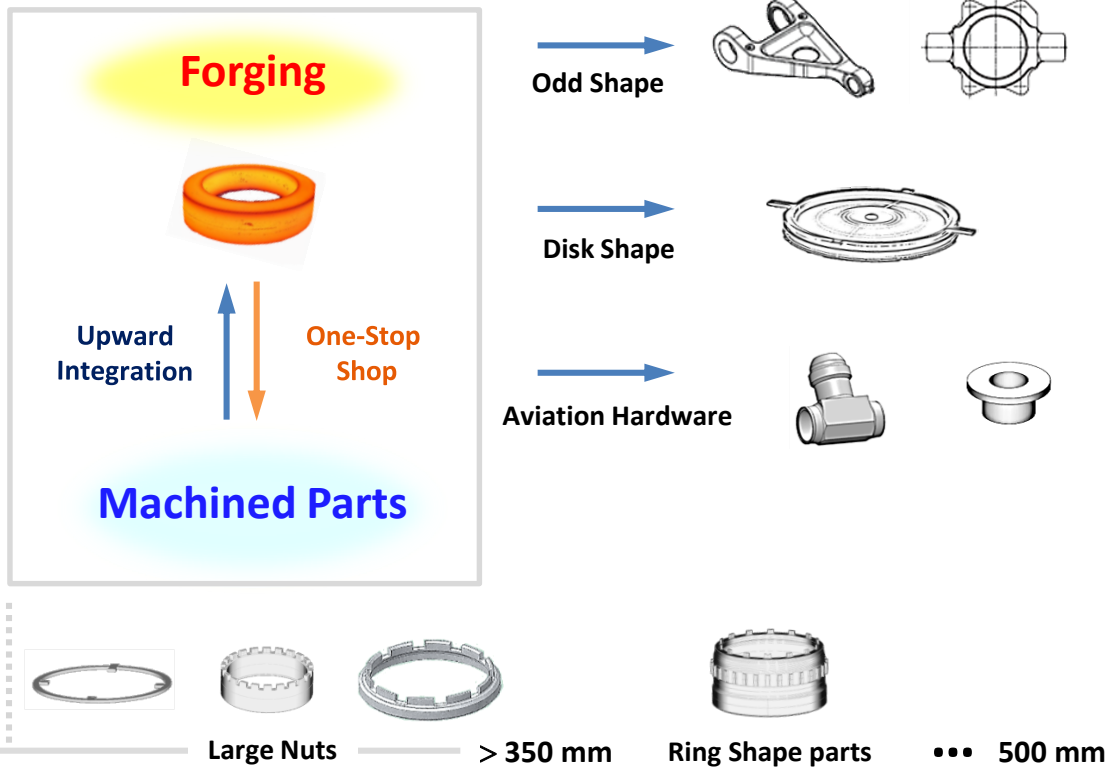


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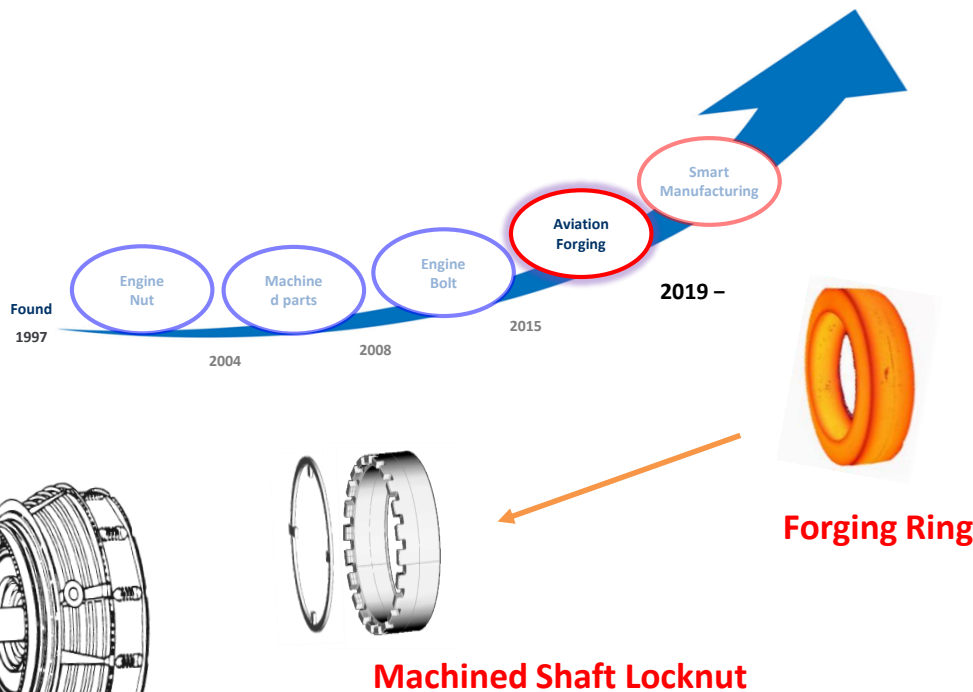
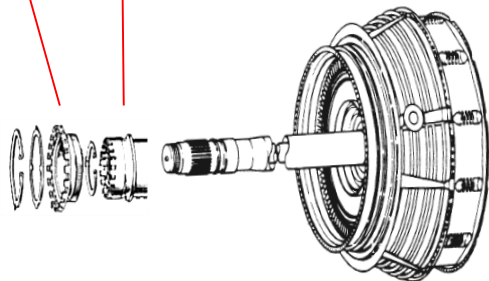
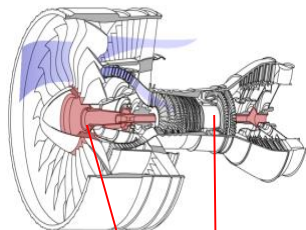
# NAFCO Aerospace Forging Development

Forging combined with subsequent processing, build a competitive 1) internally threaded aerospace product family 2) ring (disc) shaped aerospace products 3) odd shaped aerospace products and 4) high market value aviation hardware parts



# Engine Ring Products

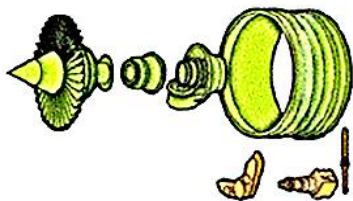
## Commercial Aircraft Engine





# A Diversified Engine Nut series of different functions and sizes

Fan/Booster Major Module



Core Major Module

- HPC
- Combustor
- HPT



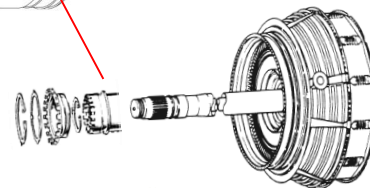
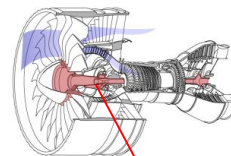
LPT Major Module



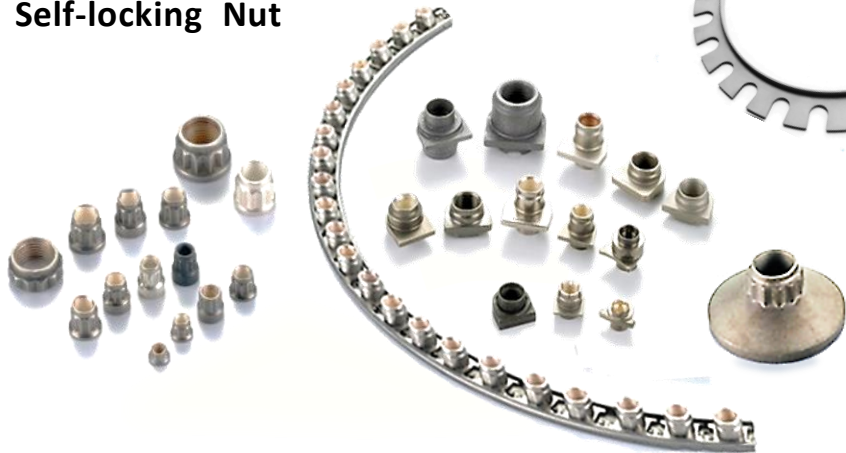
Gearbox Major Module 齒輪箱主模組



Lock nut



Self-locking Nut



Machined part



# The focus of automotive product development---Customized Products



chassis



body



**STANLEY**

1997

Standard parts  
Rivet Nut / Brass Insert

2017

Focus on Lightweight/High  
Strength/High Torque  
Inserts used in lightweight (new  
energy) vehicles

2020

**Customized**  
Co-designed with automakers & Tier 1

Co-design with OEMs and Tier 1  
Newly designed parts enter mass  
production for the first time

2022

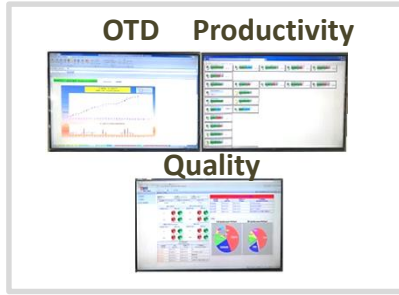
Continuous research and  
development of customized  
components with unique  
application requirements



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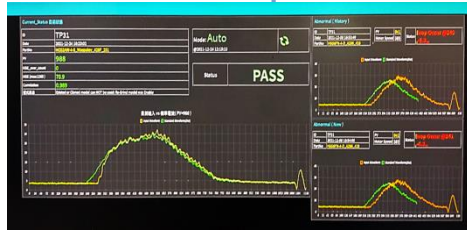
# Smart Manufacturing



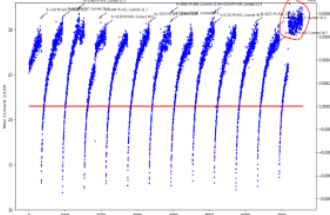
Shop floor Kanban



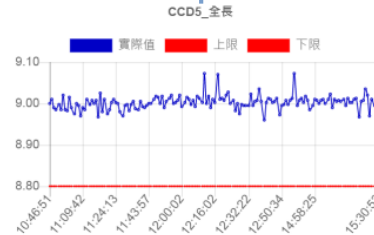
AI Automated Production Line



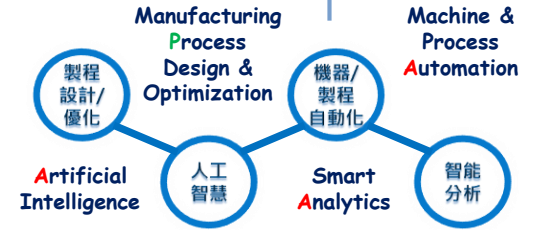
Defect and Anomaly detection



Tool life monitoring



Process Control



AI (Artificial Intelligence) In Manufacturing

# Commercial Aircraft Market Trend

## Air travel forecast

- Intra-regional markets will gradually recover as countries ease travel restrictions, followed by long-distance travel returning to pre-pandemic levels in 2023-2024

## Changes in aircraft type demand

- Boeing's Commercial Market Outlook (2022-2041) forecasts single-aisle airliners will account for over 75% of all new deliveries to the global market
- The impact of the pandemic on the wide-body airliner market is clear, with Boeing's 20-year commercial market outlook forecasting that wide-body airliner deliveries account for only 18 percent of new deliveries
- Airbus' 20-year demand forecast gives similar results; 20% for typical widebody aircraft and 80% for typical single aisle aircraft

## New airplane demand

Airline will need around 47,000 aircraft to operate by 2042, an 81% increase from 2019, with nearly 87% of these being new builds.

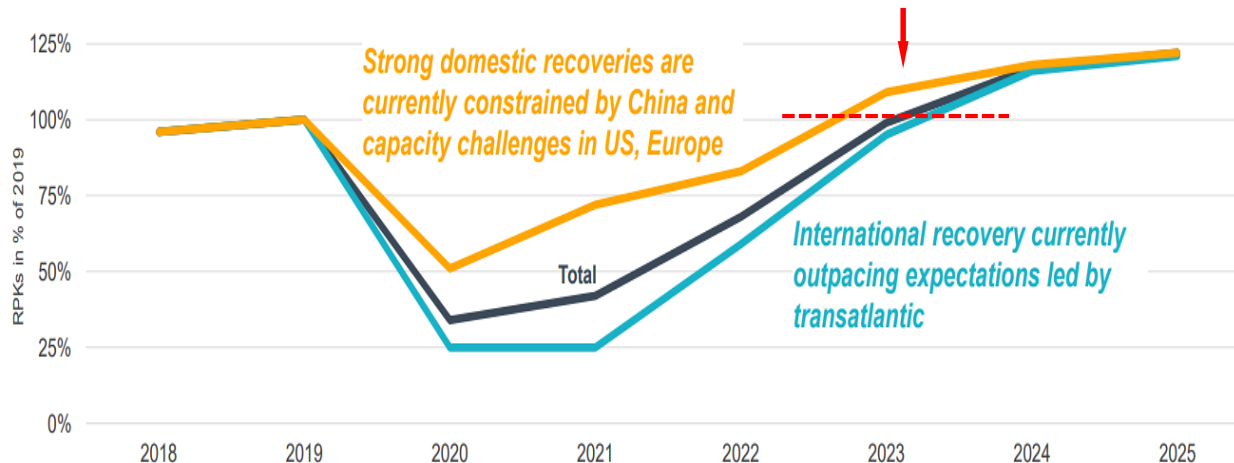
The main drivers are

- The cost of bringing the grounded fleet back to service is very high. When markets recover, airlines will choose to purchase new aircraft
- Higher energy and carbon costs begin to hit the market; as the market recovers, inefficient fleets operating at high costs will shift to new aircraft
- Continued year-on-year growth in world GDP enables more people to travel by air



# Market Recovery timeline

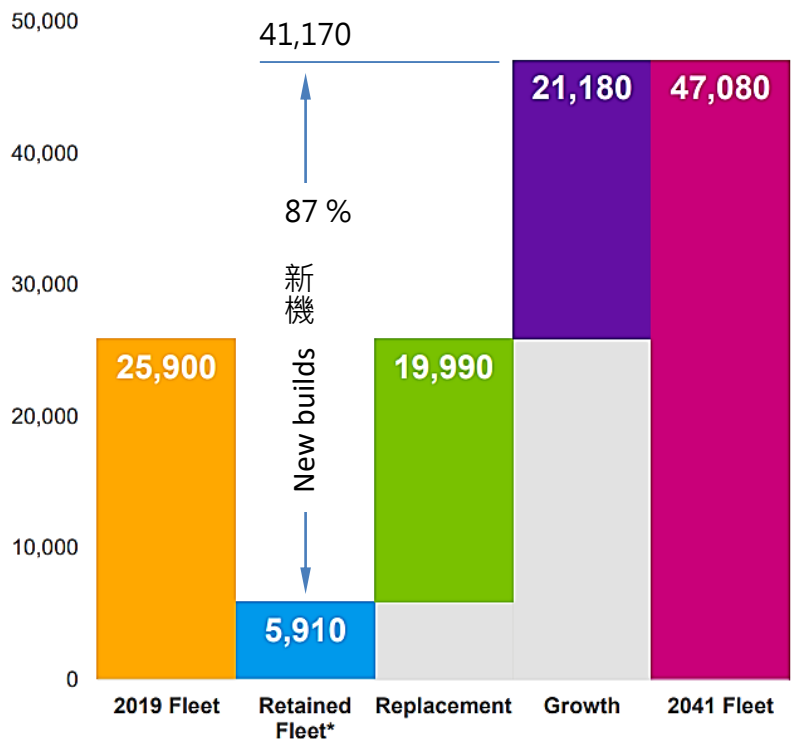
2023~2024 Return to pre-pandemic level



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# Boeing forecast airlines will need 41,170 new airplanes over 20 years

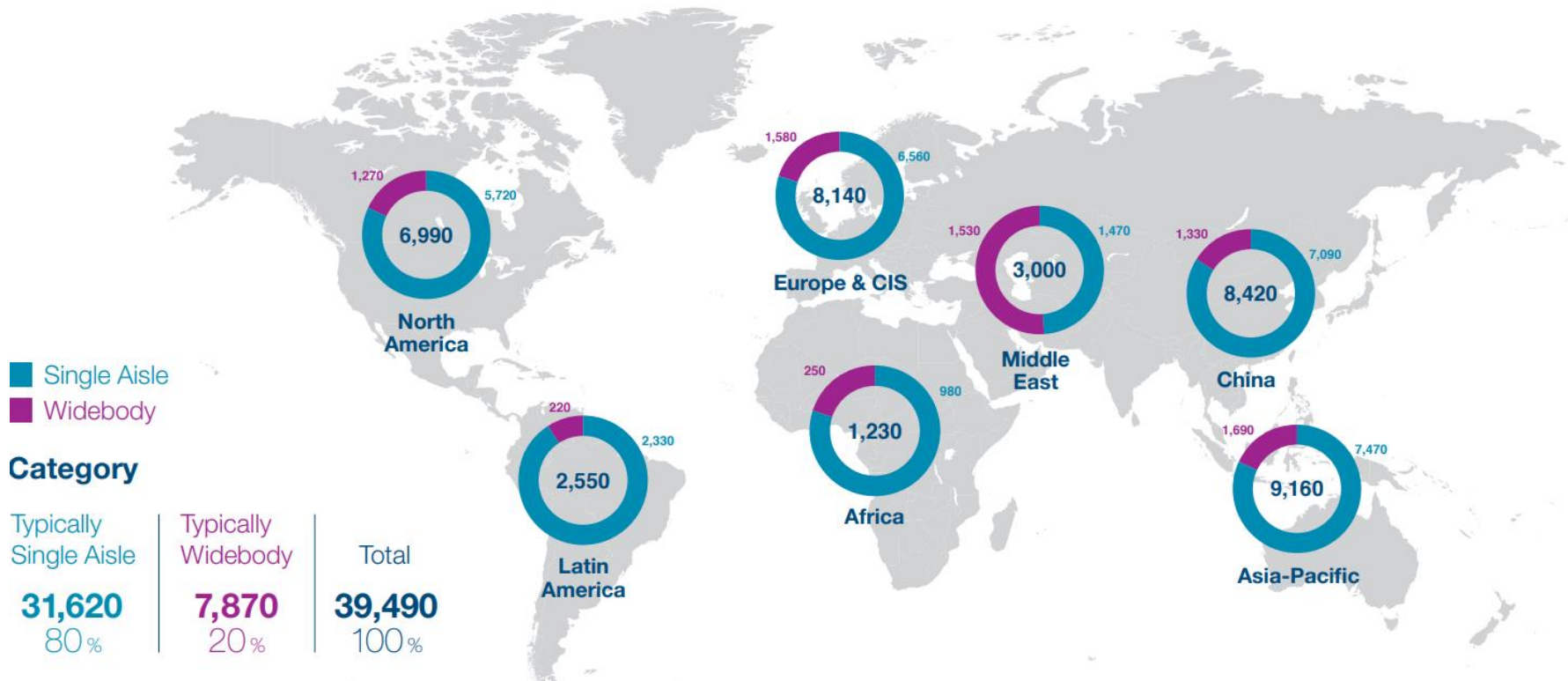


Note : Airlines will need 19,575 new airplanes over 10 years



# Commercial Aircraft demand 2022-2041

Asia-Pacific, China, Europe and US continue to be major drivers for growth & replacement



Note: Passenger aircraft (>100 seats), Freight (>10t) | Figures rounded to the nearest 10  
Source: Airbus Global Market Forecast 2022

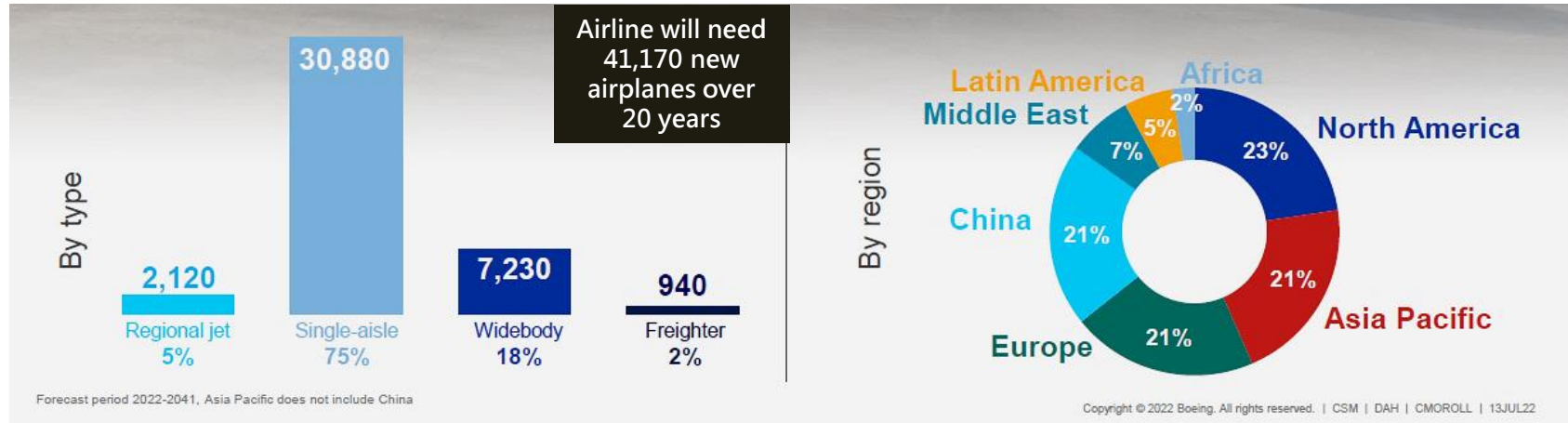
**AIRBUS**



壹 建 科 技 股 份 有 限 公 司

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# Single Aisle dominates the market



## PASSENGER AIRPLANES

### REGIONAL JETS

AVIC ARJ-700  
Bombardier CRJ  
Embraer ERJ Series  
Embraer 170 Series  
Fokker 70  
Sukhoi SSJ100

### SINGLE AISLE AIRPLANES

Boeing 717  
Boeing 737  
Boeing 757  
Boeing/MDC MD-80, -90  
Airbus A220 Series  
Airbus A320 Series  
Bombardier CRJ-1000  
Comac C919  
Embraer 190 Series  
Fokker 100  
UAC MS 21

### WIDEBODY AIRPLANES

Boeing 747  
Boeing 767  
Boeing 777  
Boeing 787  
Airbus A300/A310  
Airbus A330  
Airbus A340  
Airbus A350  
Airbus A380



# Primary single-aisle aircraft engines

## PASSENGER AIRPLANES

### SINGLE AISLE AIRPLANES

Boeing 717

→ Boeing 737

Boeing 757

Boeing/MDC MD-80, -90

Airbus A220 Series

→ Airbus A320 Series

Bombardier CRJ-1000

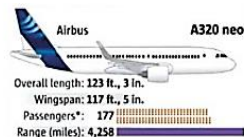
→ Comac C919

Embraer 190 Series

Fokker 100

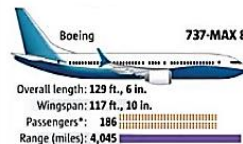
UAC MS 21

**LEAP-1A/-1B/-1C have a 72 % share of the entire narrowbody market**

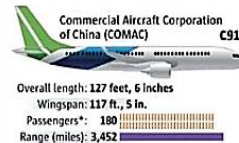


\* Single class comparison  
Source: COMAC, Boeing, Airbus, Netium.net  
MARK NOWLIN / THE SEATTLE TIMES

CFMI LEAP-1A  
PW1100G-JM



CFMI LEAP-1B



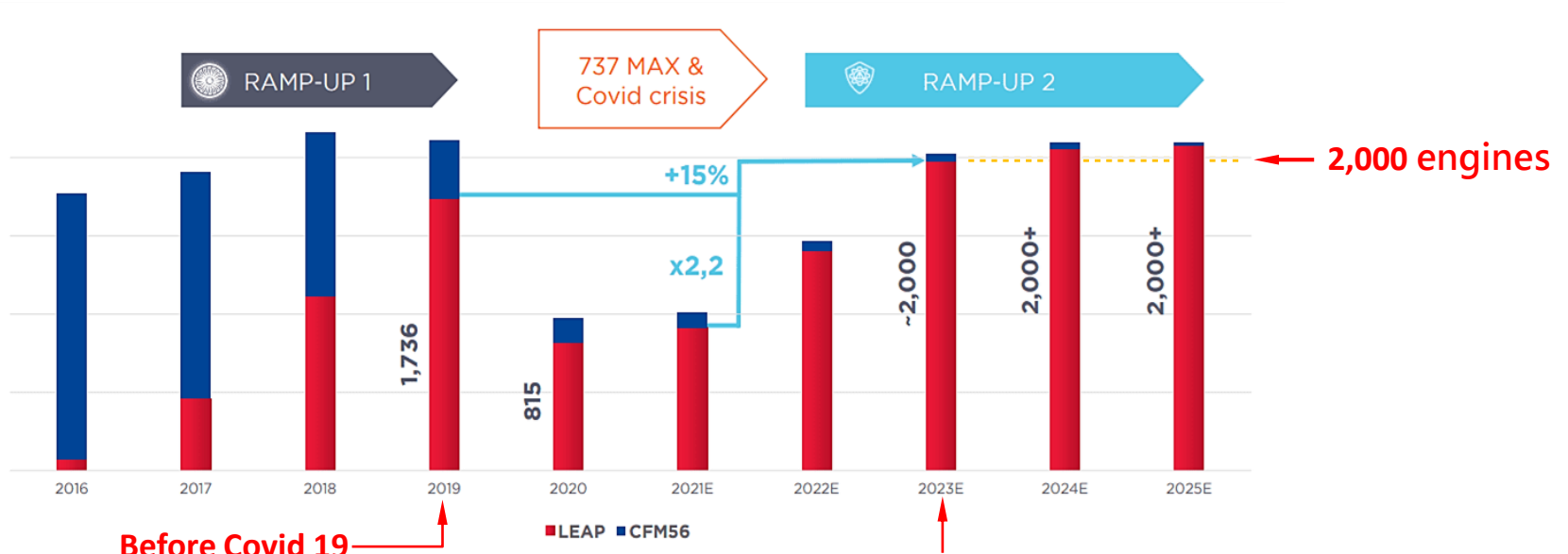
CFMI LEAP-1C

... for the environment and the fact that purely for operating costs, airlines are very, very motivated to require the latest, most efficient and lowest-emission aircraft ... ( Bob Lange, head of business analysis and market forecast at Airbus ) **FINANCE TIMES JULY 11 2022**



# Engine production plan

Around 2,000 LEAP engines will be produced annually starting in 2023



LEAP will exceed 2019 volume

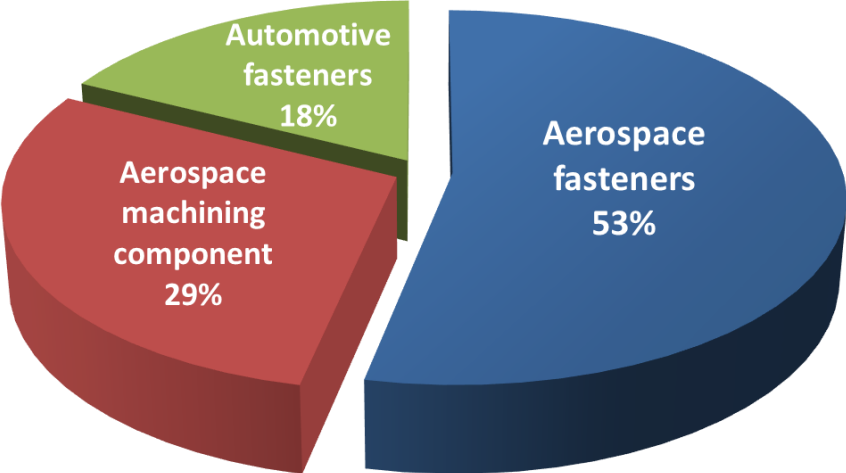


# Financial Performance

Chris Lee / CFO



# 2022Q1~Q3 Sales Revenue



Unit : NT\$ Thousands

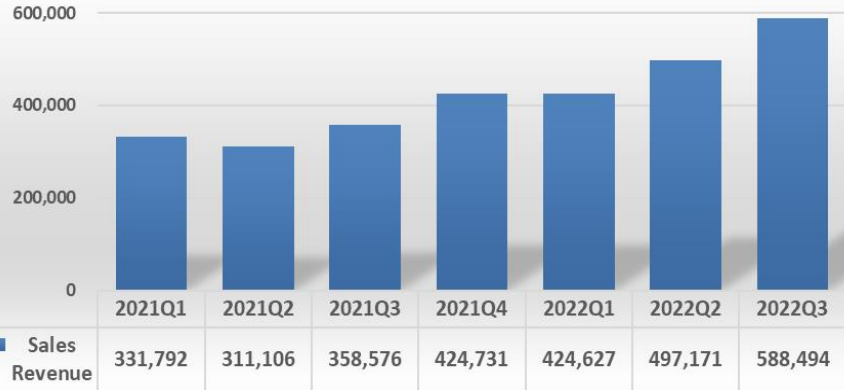
Product	Amount	%
Aerospace fasteners	805,371	53%
Aerospace machining component	439,513	29%
Automotive fasteners	265,408	18%
TTL	1,510,292	100%



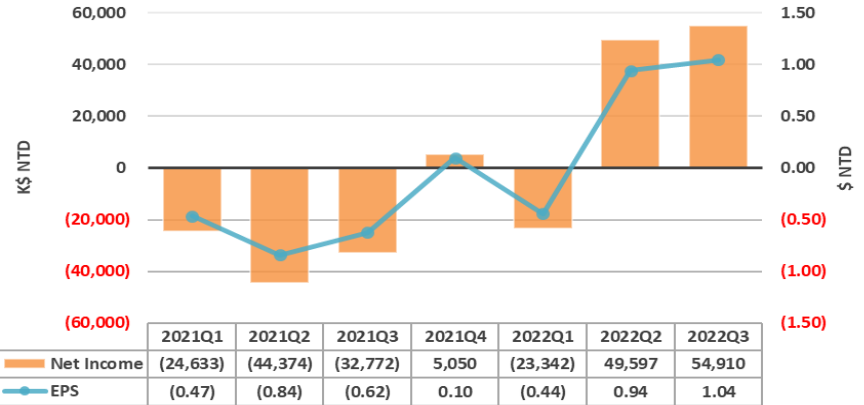
# Sales Revenue 、 Net Income and Eps

Unit : NT\$ Thousands

## Sales Revenue

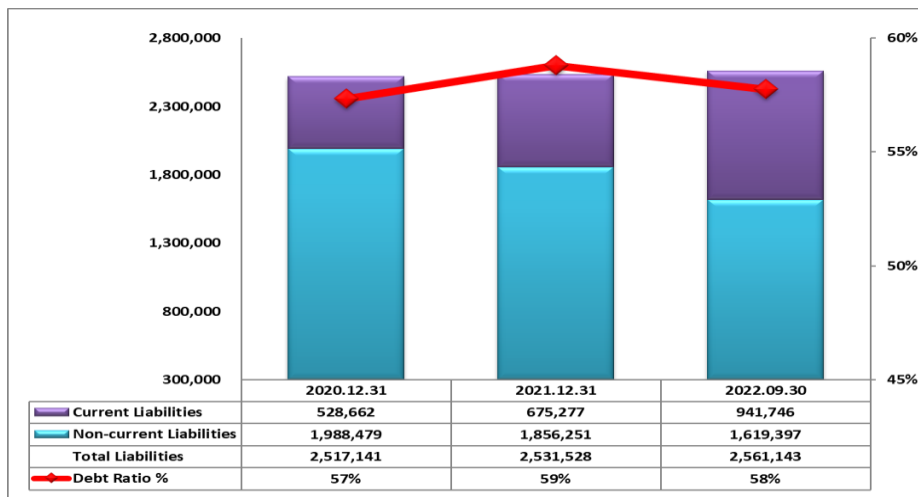
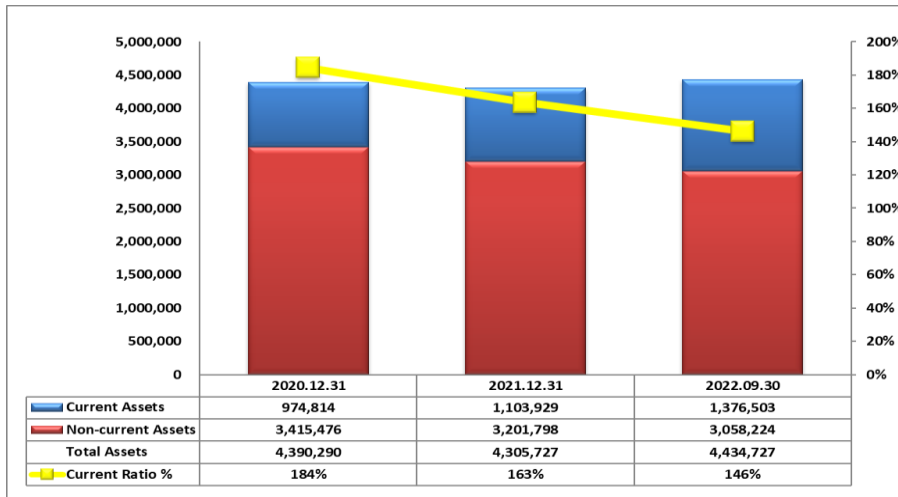


## Net Income & EPS

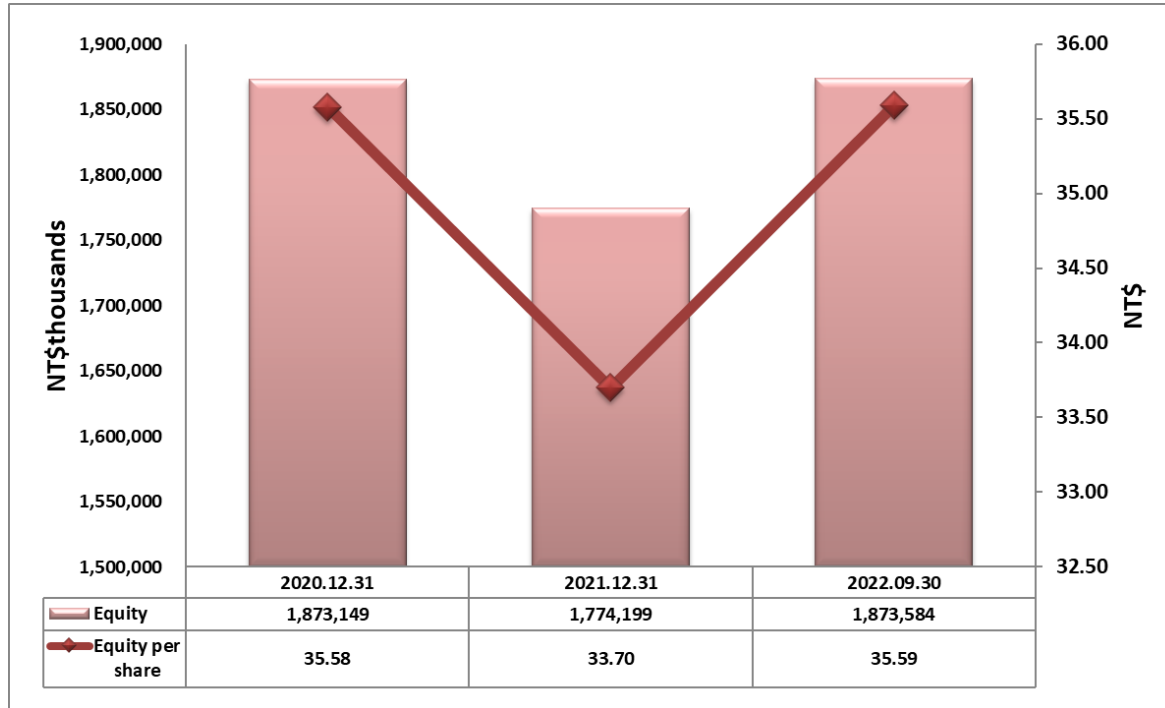


# Asset and Liabilities

Unit : NT\$ Thousands



# Equity and Equity per share



**Thank you**



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**National Aerospace Fasteners Corporation**

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