

Investor Relations 2019



AeroSpace Technology of Korea INC.

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WHO WE ARE



Business Environment



Current Business



Products



Business Strategy



Vision

ASTK is an ONE STOP SUPPLIER

- ❖ **Established in 2001**
- ❖ **Manufacture Jig & Fixture, Capable of Assembling single part & Large Structure**
 - Started as a manufacturing for Roll formed Stringer business
 - Expanded to production of main aircraft structure (panel, frame, bulkhead, door, etc.)
 - Assemble aircraft fuselage (Section 48, E-Jet II Integration)
- ❖ **Core Competency (Meets On Time Delivery, Quality and Price target)**
- ❖ **Certificates**
 - PLATINUM SUPPLIER by SPIRIT in 2012 & 2014
 - SUPERIOR QUALITY SUPPLIER in 2015
 - SUPERIOR QUALITY & Delivery SUPPLIER in 2016
- ❖ **No. 1 Outsourcing Company of World's Biggest Fuselage Manufacturer**

WHO WE ARE

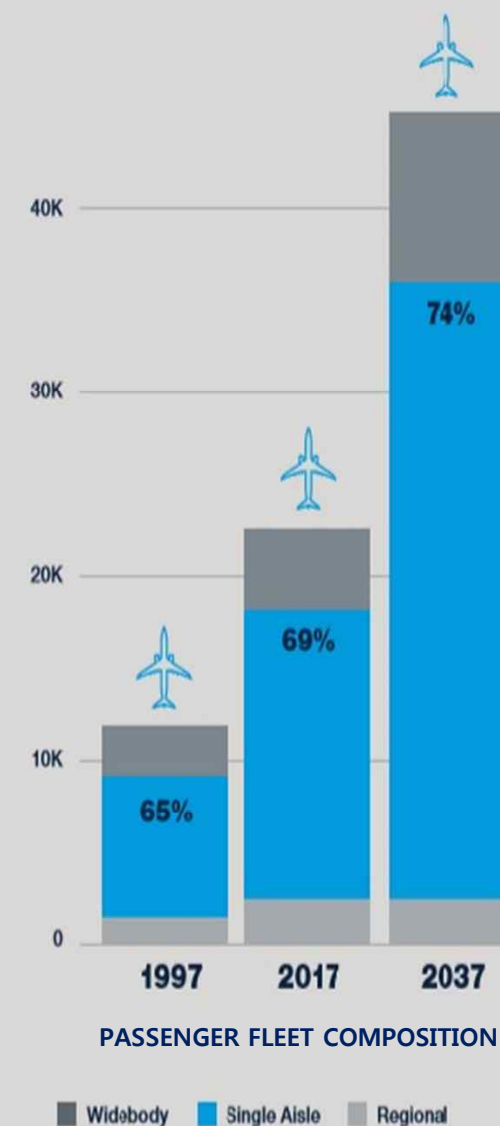
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Source: FlightGlobal Flight Fleets Analyzer, CMO 2018

Source: from Boeing

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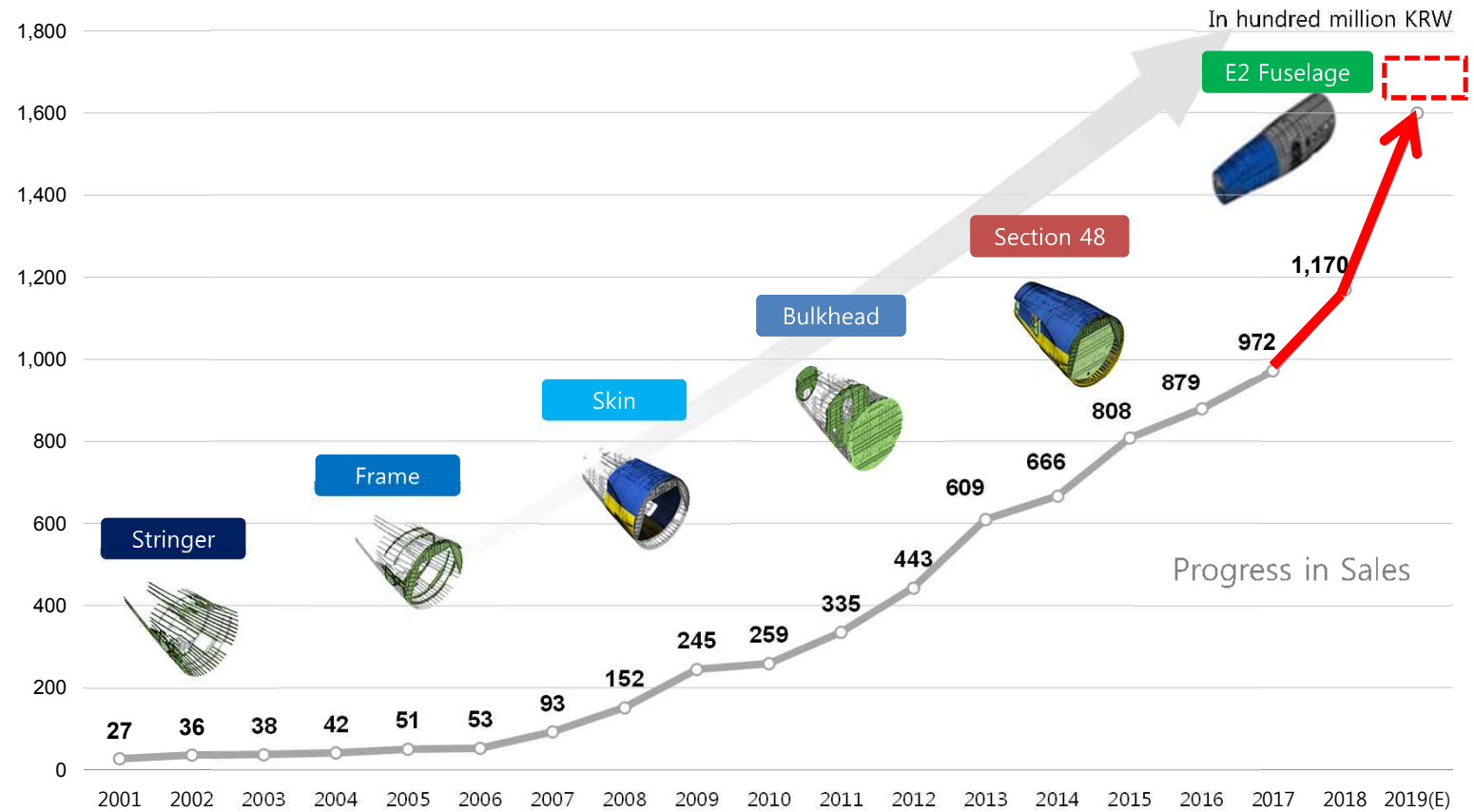
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✓ Growing into total Fuselage Solutions Business



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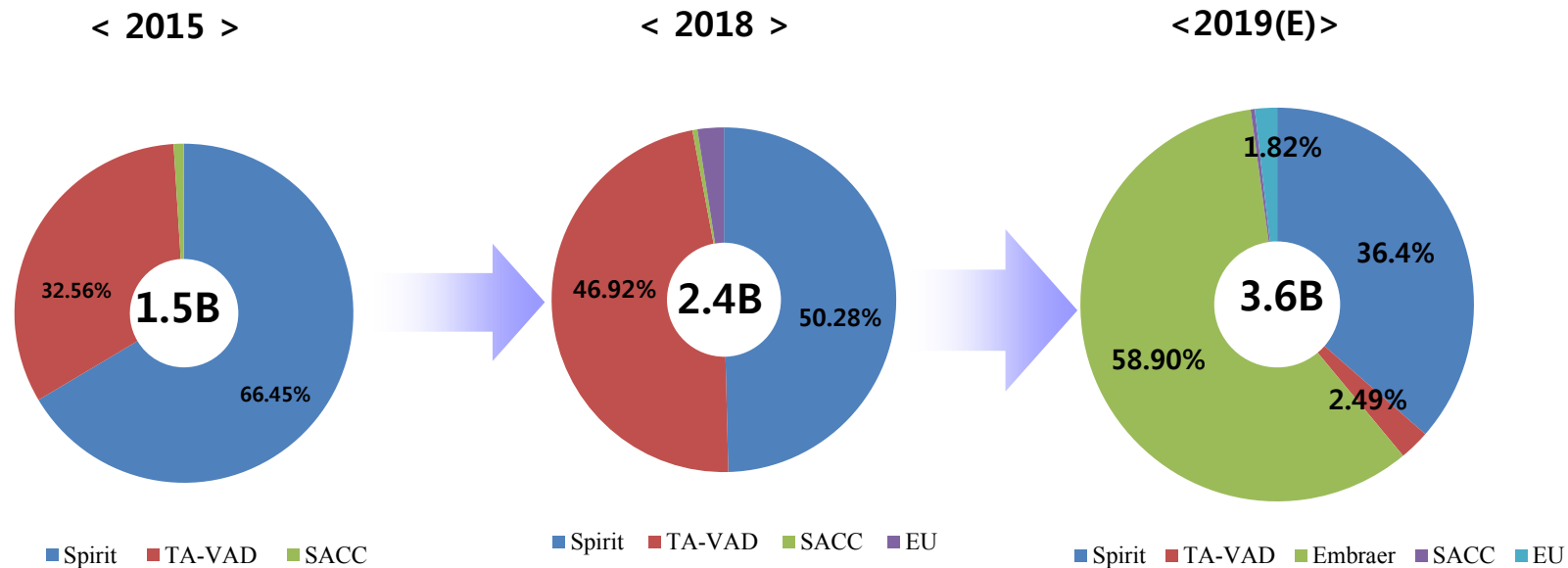
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✓ BackLog



- Diversification in Customer Pool
- Delivery to Global Major Aircraft Manufacturers
(Boeing, Airbus, Embraer, Bombardier)



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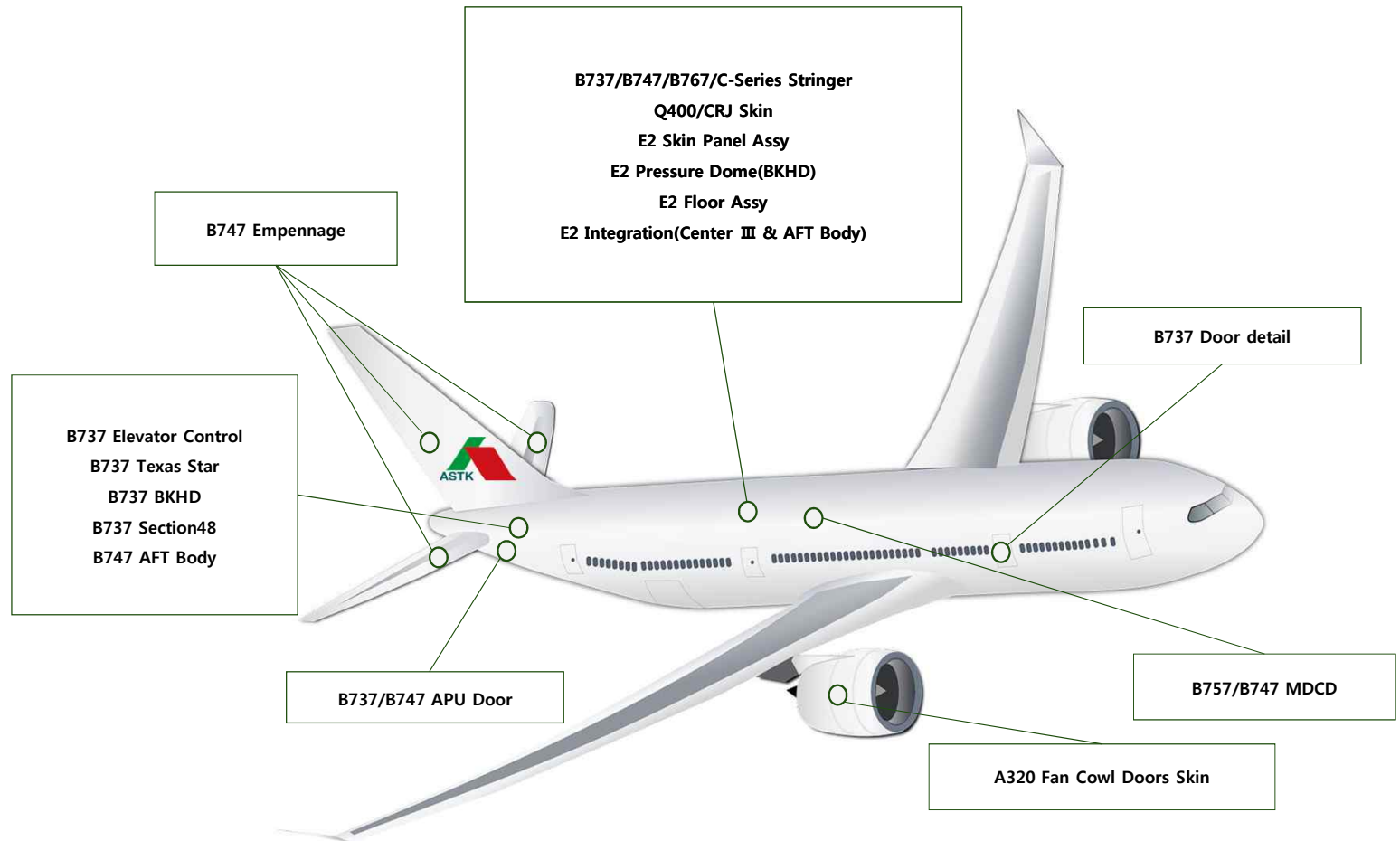


Business Strategy



Vision

✓ Products



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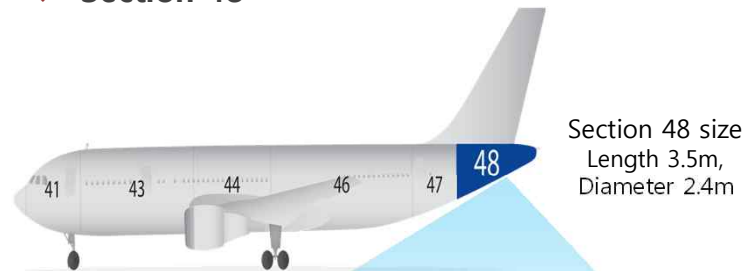
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✓ "Section 48", Key Section for Aircraft Bodies

❖ Section 48

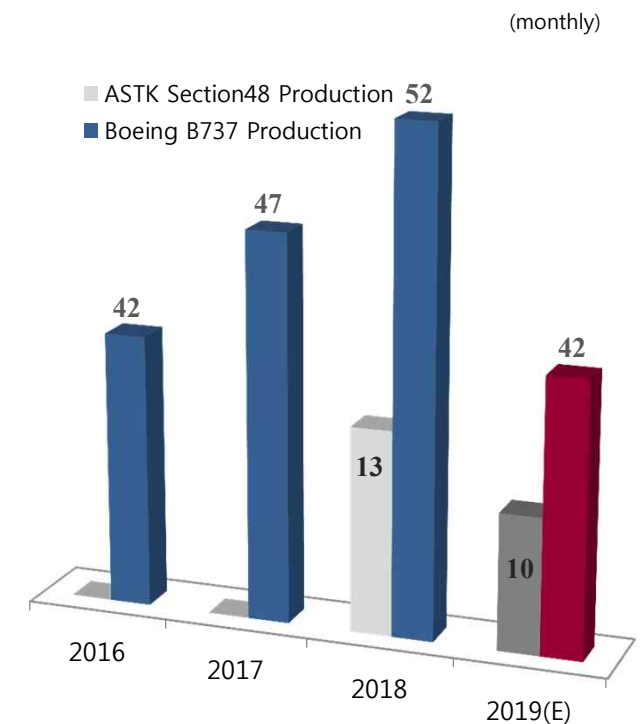


Related key technology of Section 48 by component

Stringer	Frame	Skin	Bulkhead	Precision Ass'y
Roll Forming Auto Drilling	Auto Riveting Stretch Wrap	Auto Riveting Skin Stretch	High speed High precision machining	Precise boring Face mill Skin Quality

Section48 is the very core of aircraft safety
→ Capable of producing all sections for manufacturing fuselage

❖ B737 Production rate



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✓ E-jet II Acquisitions

➤ Backgrounds

- In 2013, joined Embraer S.A E2 development projects, Center Fuselage III and Aft Body section Triumph RSP
- In 2016, decided to restructure business -> in late 2018, decided to sell business rights
- In Feb. 2019, participated in the bidding for taking over business rights of ASTK
- In Mar. 2019, Directors of Embraer visited ASTK production facilities
- Embraer, Boeing & Embraer Joint venture Approval
- On 25 March 2019, signed on ASTK takeover



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✓ E-jet II Acquisitions

➤ Main Points

- Contractual status & rights & assets from Triumph Aerostructures, LLC. Embraer E2 Center Fuselage III and Aft Body program
 - > Ultimate authority in products
 - > NRC (Non-recurring cost) : \$ 78.5 million
 - > Devolve intellectual property such as design know-how, data from the time to undertake fuselage development (Design Technique, Design Alter Technique, etc)
 - > Engineering Support for the next 5 years





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✓ E-jet II Acquisitions _ Investment highlight

➤ Third Largest Aircraft Producer, Embraer S.A, improves its status as Tier-1

- Expected to hold monopoly status in fuselage field through long-term supply contracts leading to continuous Sales and OP growth
- Expect to attain direct orders from aircraft manufacturer

➤ Positive Outlook on E2 Fleet

- Operating aircrafts carrying 70~130 passengers are expected to increase steadily, from 2,700 fleets in 2016 to 6,710 fleets by 2036 with CAGR of 4.9%
- In case of E1, which earlier model of E2, 1,521 aircrafts out of 2,056 orders were delivered
- High Demand on E2 due to reduced operational expense by 35%~27%
- 1,961 E2 aircrafts will be delivered during 2019 ~ 2041.

➤ Boeing/Embraer Strategic Partnership (Joint-Venture)

- With Boeing's sales strategies, E2 projects are expected to grow bigger than the market expectations.
- Due to acquisitions of E2, possess fuselage development technology → Priority to join Boeing's new projects

➤ Highly Profitable & Generate Cash Flow

- By 2041, Sales of Fuselage, Rudder and Elevator are expected to reach approximately 2.571 trillion won.
- Other business revenues for manufacturing jig & fixture will be 78.5 million dollars cash in.

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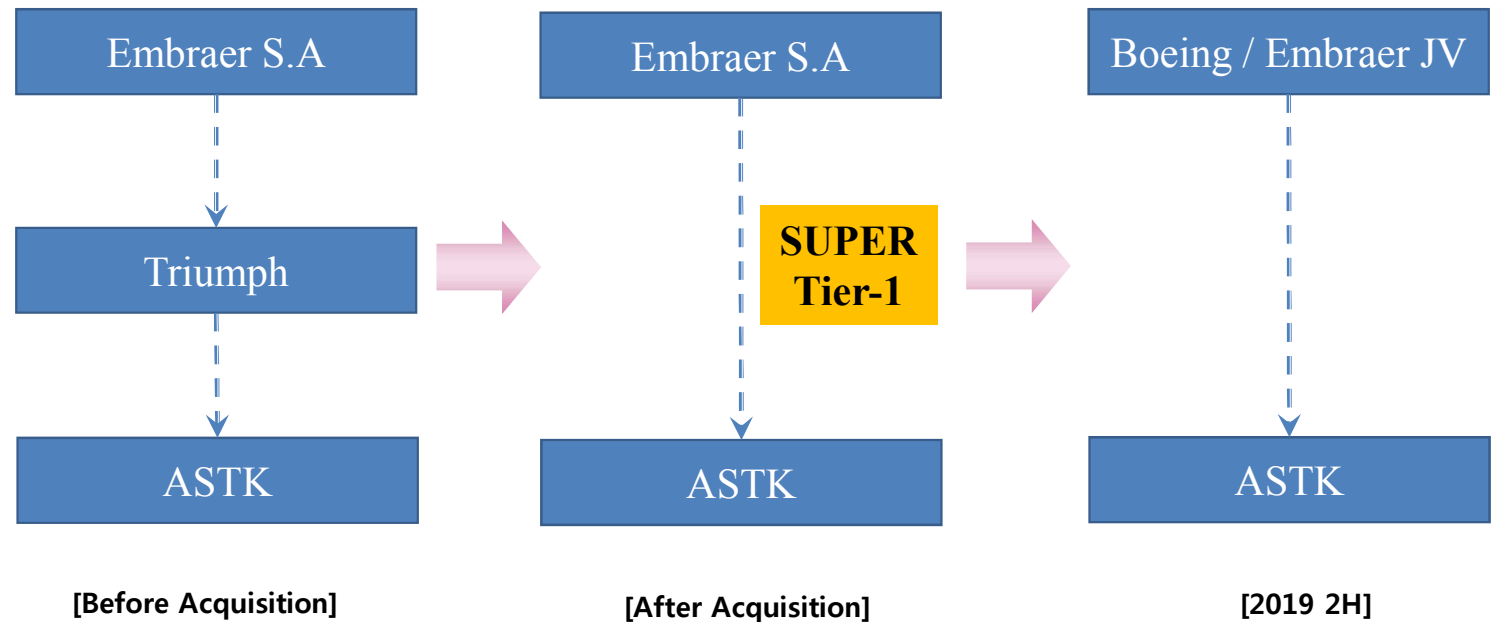
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✓ E-jet II Acquisitions _ Investment highlight

- Raising the status as Super Tier-1
- Expected sales in 2041, approx. 1.2 trillion KRW



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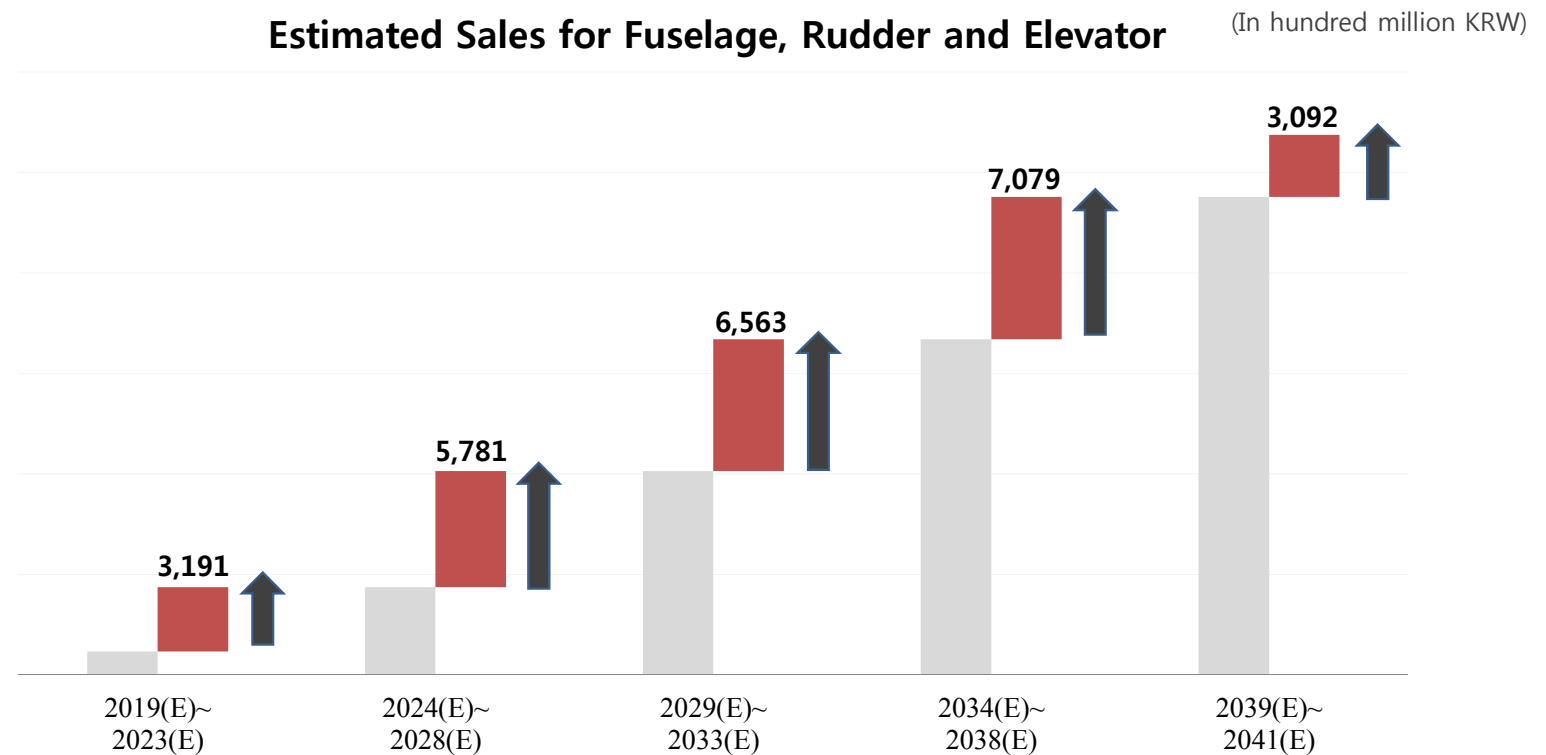
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✓ E-jet II Business acquisition update_Investment highlight



- Sales expectations for Fuselage, Rudder and Elevator approximately 2.5710 trillion won by 2041.

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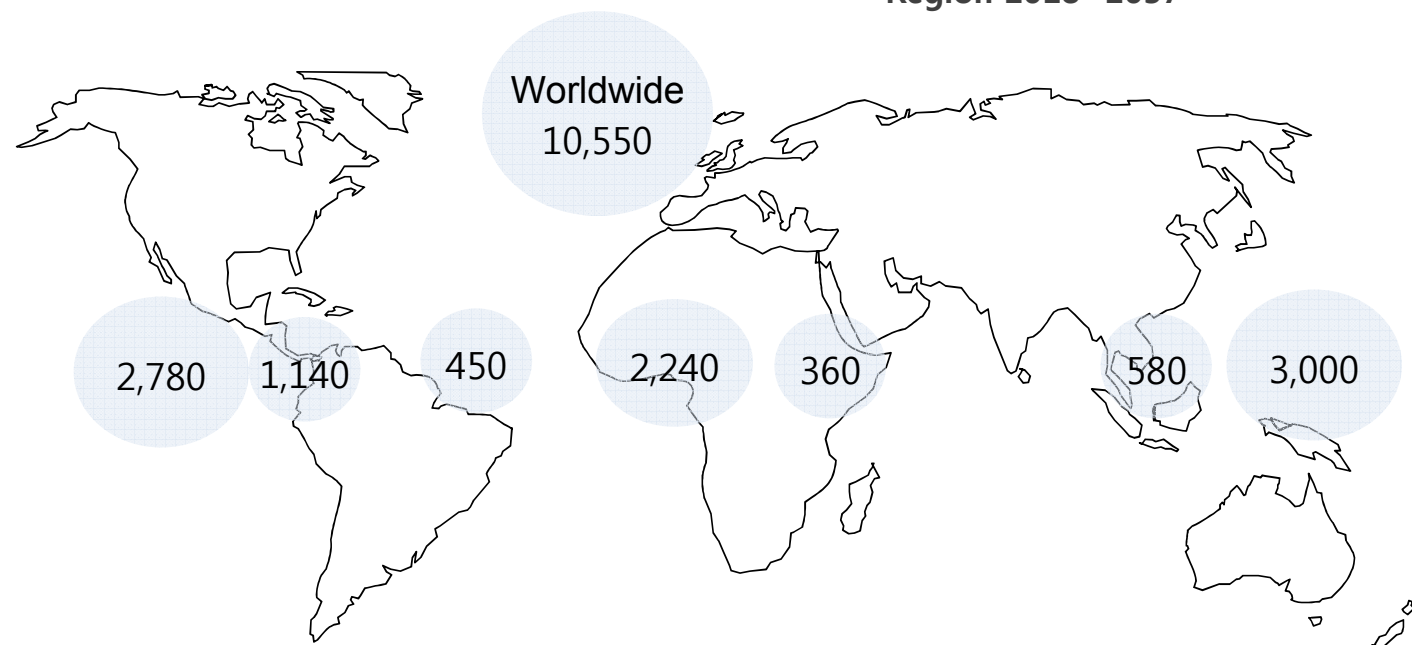
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✓ Embraer E-jet Market

UP To 150 Seats Projected Deliveries by
Region 2018 -2037



Model	Firm Order	Options	Total	Deliveries	Firm Backlog
E – Jet I	1,772	334	2,056	1,521	201
E – Jet II	168	111	279	6	162

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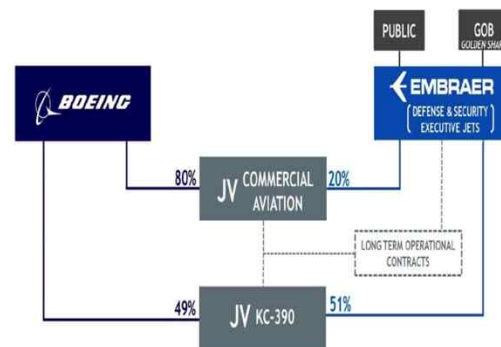
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✓ Boeing / Embraer Strategic Partnership



THE STRATEGIC PARTNERSHIP INCLUDES:

- ✦ CREATION OF THE COMMERCIAL AVIATION JOINT VENTURE (OWNERSHIP: 20% EMBRAER / 80% BOEING)
- ✦ CREATION OF THE KC-390 JOINT VENTURE (OWNERSHIP: 51% EMBRAER / 49% BOEING)
- ✦ CREATION OF LONG TERM OPERATIONAL CONTRACTS RELATED TO ENGINEERING SERVICES, INTELLECTUAL PROPERTY, R&D, SITES ACCESS, SUPPORT AND SUPPLY CHAIN



출처: Embraer, [Deal presentation]

TRANSACTION RATIONALE

PARTNERSHIP COMBINES BOEING'S SALES, MARKETING AND PROCUREMENT CAPABILITIES WITH EMBRAER'S LONG HISTORY OF INNOVATION AND COST EFFICIENT DEVELOPMENT

- BETTER EQUIPS BOTH PARTIES TO ADDRESS THE EVOLVING GLOBAL COMPETITIVE LANDSCAPE

STRENGTHENS THE E-JET PLATFORM AND UNLOCKS ITS FULL POTENTIAL

- LEVERAGES BOEING'S GLOBAL SUPPLY CHAIN, CUSTOMER BASE AND SALES NETWORK
- ENHANCES CUSTOMER VALUE PROPOSITION WITH MARKET LEADING 70 - 130 SEAT OFFERING

MORE EFFICIENT EXECUTIVE JET AND DEFENSE OPERATIONS

- FOCUSED EXECUTION AND FINANCIAL CAPACITY FOR FUTURE INVESTMENTS
- RETAINS END-TO-END ENGINEERING AND OPERATIONAL CAPABILITIES ENHANCED BY THE PARTNERSHIP WITH BOEING
- FORMATION OF JOINT VENTURE TO ACCELERATE KC-390 SALES OUTSIDE OF BRAZIL
- STRONG BALANCE SHEET WITH FCF SUPPLEMENTED VIA MANDATORY DIVIDEND PAYOUTS FROM COMMERCIAL AVIATION, ACCORDING TO THE DIVIDEND POLICY

SIGNIFICANT VALUE CREATION AND ENHANCED RETURN OF CAPITAL

- POTENTIAL REVENUE SYNERGIES DRIVEN BY CONSOLIDATED PORTFOLIO AND CUSTOMER ACCESS
- EXPECTED COSTS SYNERGIES DRIVEN BY SUPPLY CHAIN, ENGINEERING, MANUFACTURING, AND VERTICAL INTEGRATION
- SPECIAL DIVIDEND (APPROX. \$1.6BN) TO EMBRAER'S SHAREHOLDERS, SUBJECT TO CONFIRMATION OF CERTAIN ELEMENTS, INCLUDING THE RESULTS AT THE END OF THE FISCAL YEAR

출처: Embraer, [Deal presentation]

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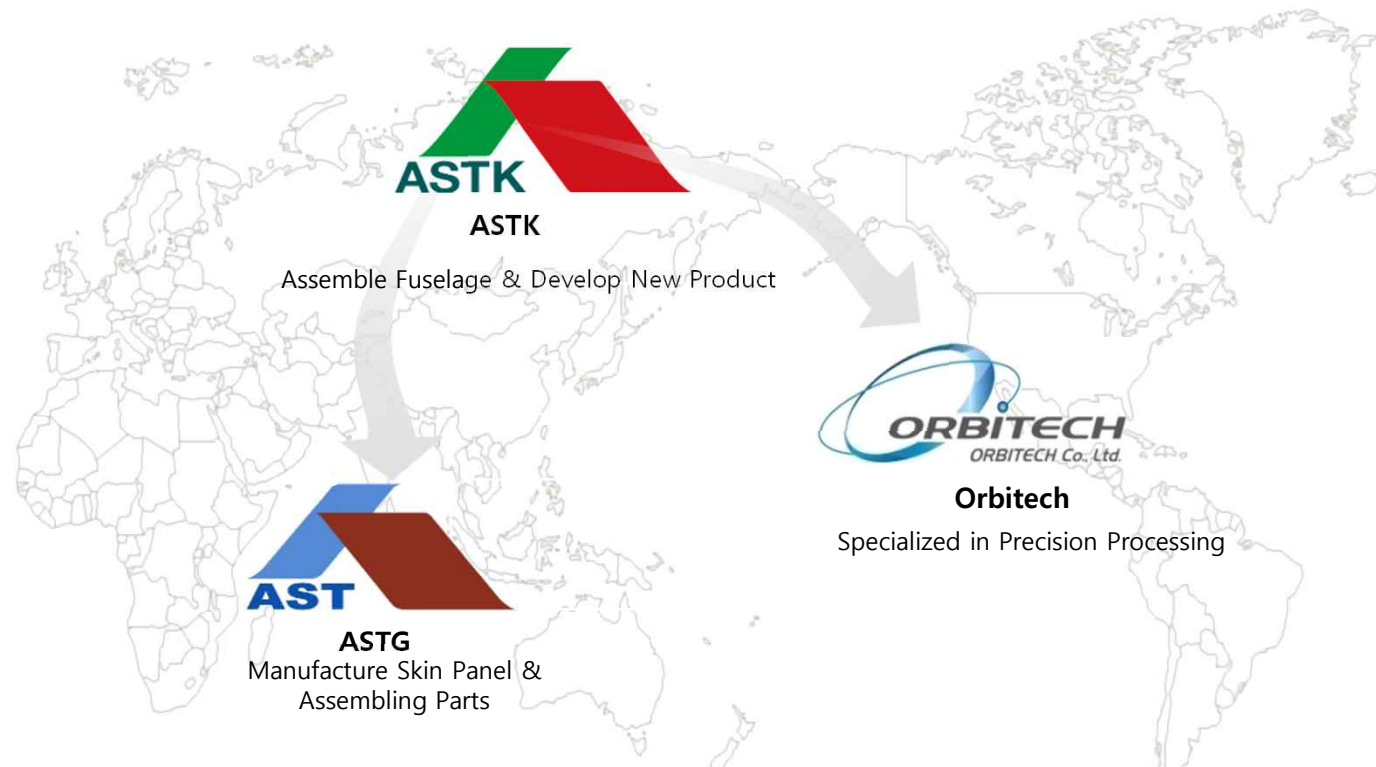
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✓ Outsourcing and Synergy

❖ Building a vertical production system



-> Optimize Manufacturing Footprint & Capabilities

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Expanding Business Area

Commercial Aircraft

- ✓ Expanding customer base



MRO

- ✓ Expanding involvement in Airframe



Military Aircraft

- ✓ National Project : Acquired Design Capabilities
- ✓ Off-set business : Securing Opportunities through a business agreement with other defence business bidders



KFX



Boeing - Saab BT-X



F-35



KC-X



Appendix

✓ Company Profile

Overview

CEO	Hee Won, Kim [No. of shares: 4,152,797(16.17%)]
Industry	Aircrafts & Parts
Establishment	2001. 04. 18
Number of Employees	269 (As of 30 June, 2019)
Listed on KOSDAQ	2014. 12. 14
Capital	₩12.8B (As of 30 June, 2019)
Market Cap (KOSDAQ)	₩234.5B (As of 30 June, 2019)
Website	www.astk.co.kr

HQ



- Site : 24,600 m²
- Location : Sacheon-si, Gyeongnam

Assemble components



CEO



Kim Hee Won

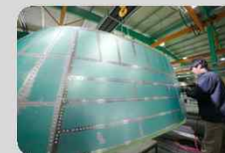
1978~1999 Samsung Techwin
 1999~2001 Director, Korea Aerospace Industries
 2001~present ASTK

2nd Factory



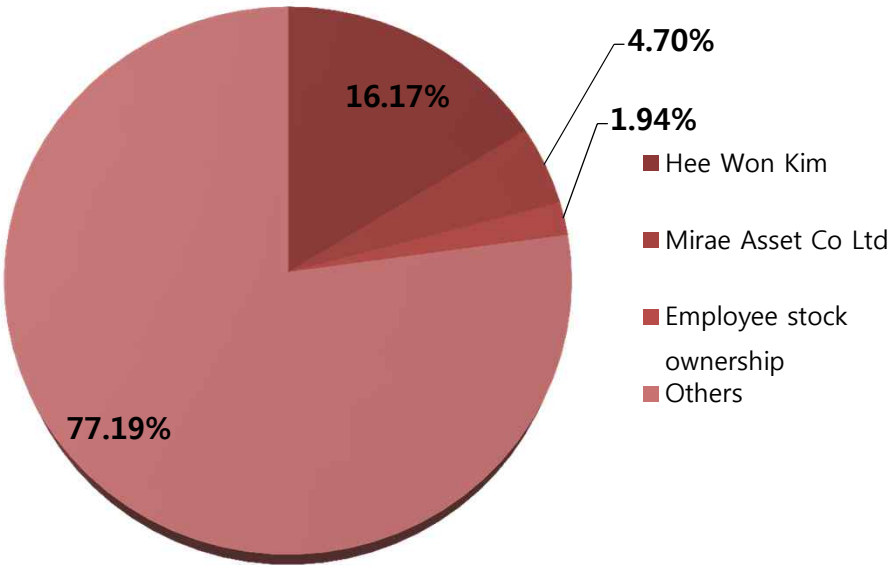
- Site : 13,500 m²
- Location : Sacheon-si, Gyeongnam

Assemble aircraft large-scale structure



✓ Shareholders

NO	Name	Amount
1	Hee won Kim	4,152,797
2	Mirae Asset Co Ltd	1,206,446
3	Employee stock ownership	499,465
4	Others	19,820,944
Total		25,679,652



✓ ASTK Key Facts

❖ Performance

Quality: 99.98%, Delivery: 99.7%

❖ Process Approval

Boeing, Spirit, TA-VAD, Airbus, Bombardier
SAC, SACC

❖ Customers(Partner)

Spirit, TA-VAD, Airbus D&S, RUAG, SAC, SACC, ST Aerospace,
Cyclone, Latecoere

❖ Supply Chain

Assembly, Machining, Chemical Process
Composite, Bonding, Design



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Financial Position

In million KRW

	2019 2Q	2018	2017
Current Asset	294,849	191,498	143,167
Non-current assets	205,693	203,555	167,339
Asset	500,542	395,053	310,506
Current Liabilities	121,953	107,665	101,699
Fixed Liabilities	150,756	166,826	93,713
Liabilities	272,709	274,490	195,412
Owners of parent equity	193,282	104,075	98,974
Capital Stock	12,840	7,858	7,370
Paid-in Capital in Excess of Par Value	171,443	76,253	64,702
Accumulated Other Comprehensive Income	-26	29	310
Other reserves	3,258	15,537	24,843
Retained earnings	5,766	4,398	1,750
Non-Controlling Interests Equity	34,552	16,487	16,119
Total Capital	227,833	120,563	115,093

Income Statement

In million KRW

	2019 2Q	2018	2017
Sales	64,983	117,013	97,206
Cost of Goods Sold	53,010	97,132	82,158
Gross Profit	11,973	19,882	15,048
SG&A	4,907	9,050	6,996
Operating Profit	7,067	10,832	8,052
Other Income	4,399	7,834	2,193
Other Expenses	4,000	5,526	6,015
Financial Income	296	741	1,859
Financial Expenses	5,973	7,953	5,083
Gains in Subsidiaries, Associates	97	369	67
EBITDA (Loss)	1,884	6,296	1,073
Corporate Tax	476	1,856	-393
Net Profit (Loss)	1,408	4,440	1,466