

Airframer Vision of the Korea Aerospace Industries

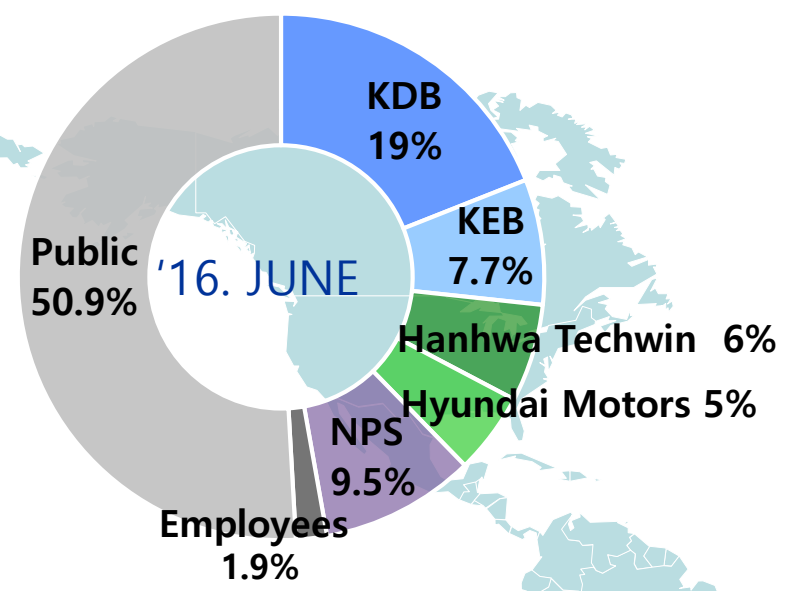
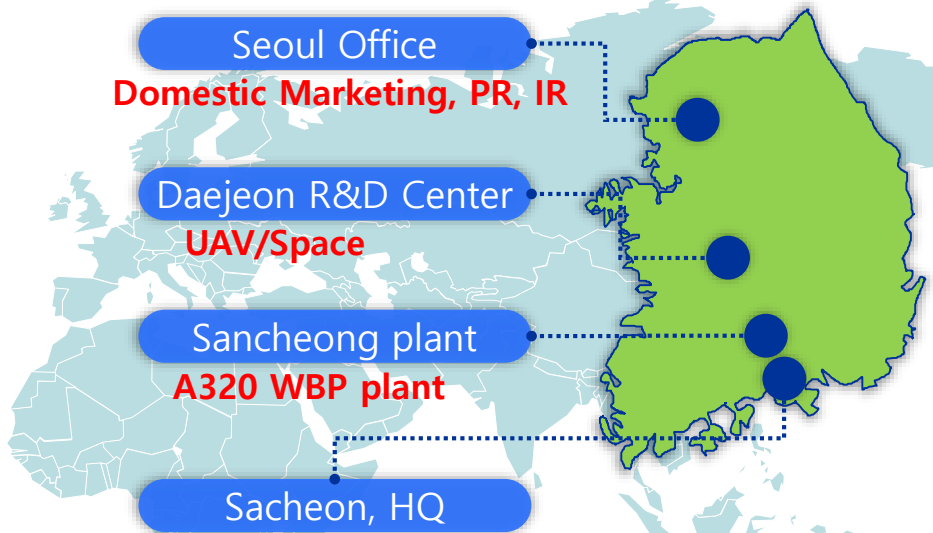
Sep. 26, 2016



Company - General

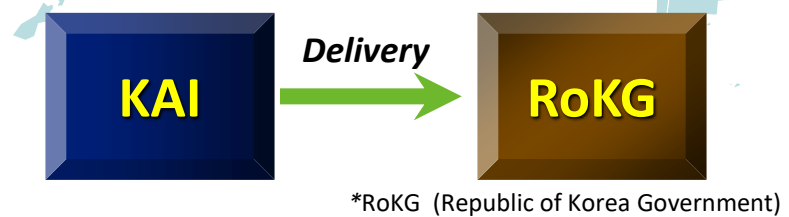


Site



KAI as Primary Source for National Programs

Fixed-Wing Aircraft	(KF-X, T-50, TA-50, FA-50, KT-1, UAV, KT-100)
Rotary-Wing Aircraft	(KUH, Derivatives LAH/LCH)
MRO Upgrade & MOD.	(P-3C/C-130 Maintenance Indigenous & Modification)
Space	(KOMPSAT, CAS, KSLV-2)



Emerging Aviation Power in Aerospace Industry

Revenue and Outlook



Major Products Export

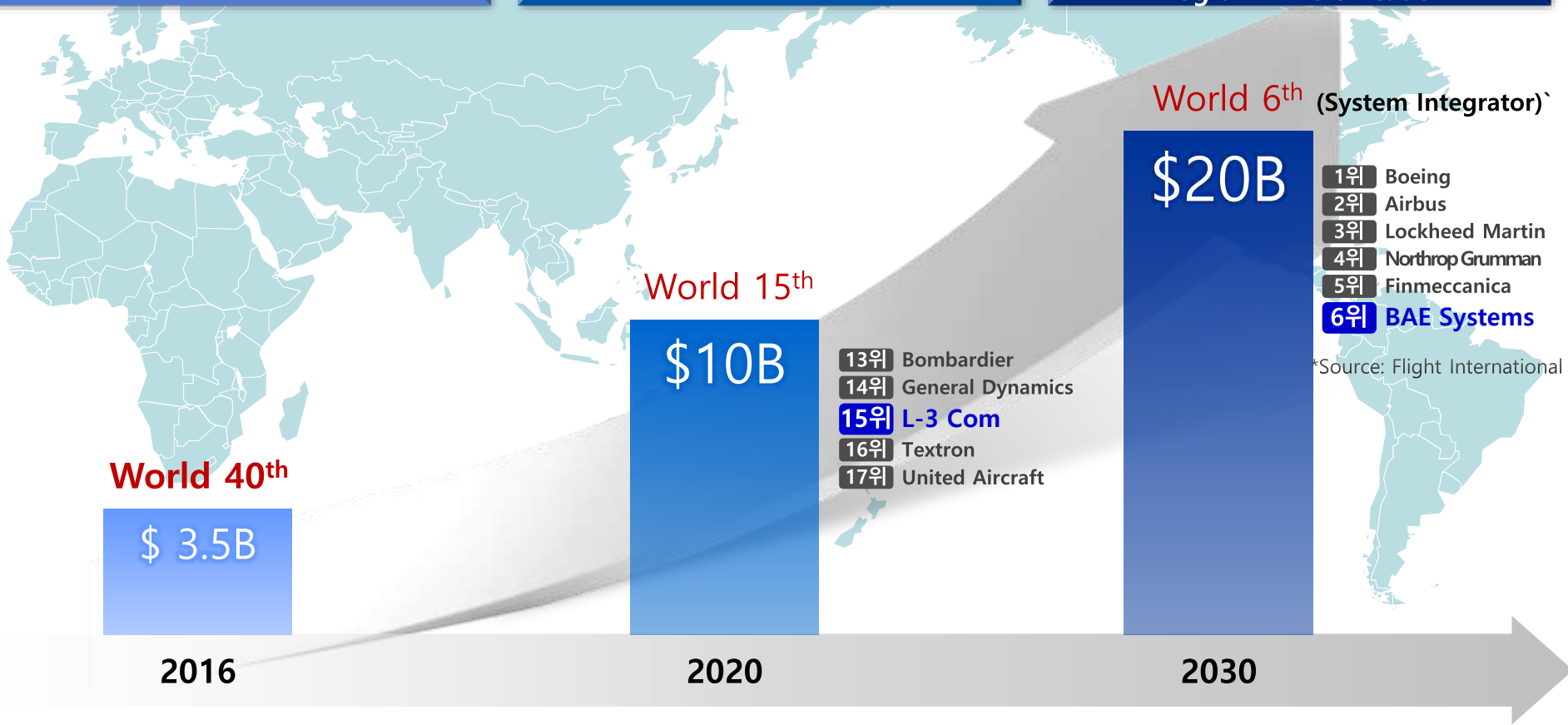
T-50, KT-1 Export, KUH, Aerostructures

Expand Newly Growth Biz.

T-X, KF-X, LAH/LCH, MRO

Strengthen the Future Biz.

Commercial A/C, Space, UAV,
Program Diversification



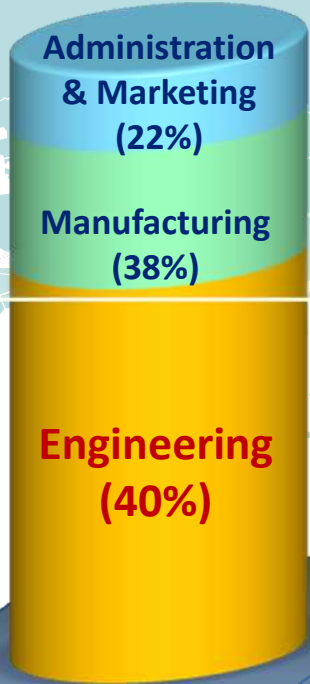
Powerful Growth to be Global Top 15 by 2020

Human Resources

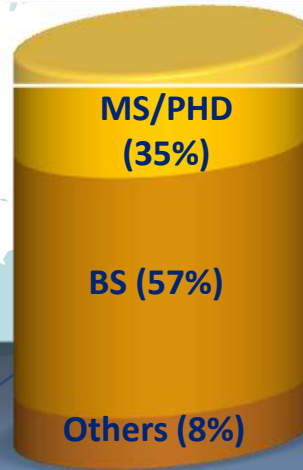


Approximately 3,620 Employees

“ 1,448 Engineers in House ”



By Function



Education



Experience

Technology-Oriented Aircraft System Integrator

Major Programs



- Military Fighter
- Military Trainer
- Tactical Aircraft
- UAV
- Commercial Aircraft

Fixed Wing



- Military Helicopter
- Commercial Helicopter

Rotary Wing

- International Co-development
- Airframe

Aerostructures

- Upgrade & Modification
- MRO

Modification & Maintenance

- Satellite & Satellite Imagery

Space

MRO Maintenance Repair and Overhaul

Total Solution Provider in Aerospace

Fixed Wing – KF-X Program



• KF-X (Korean Indigenous Fighter) Development

- Developing the 4.5 Generation plus Fighter
- Replace Retired F-4, F-5 and F-16s
- Full Scale Development : 2016~2026
- KFX EMD Program has been started officially upon EMD Contract between ROKG and KAI on Dec. 28, 2015
- KF-X is a multirole fighter aircraft satisfying the common requirement adopted by the ROKG and RIG through KF-X Technology Development(TD) Phase

*EMD : Engineering and Manufacturing Development

*ROKG : Republic Of Korea Government

*RIG : Republic of Indonesia Government

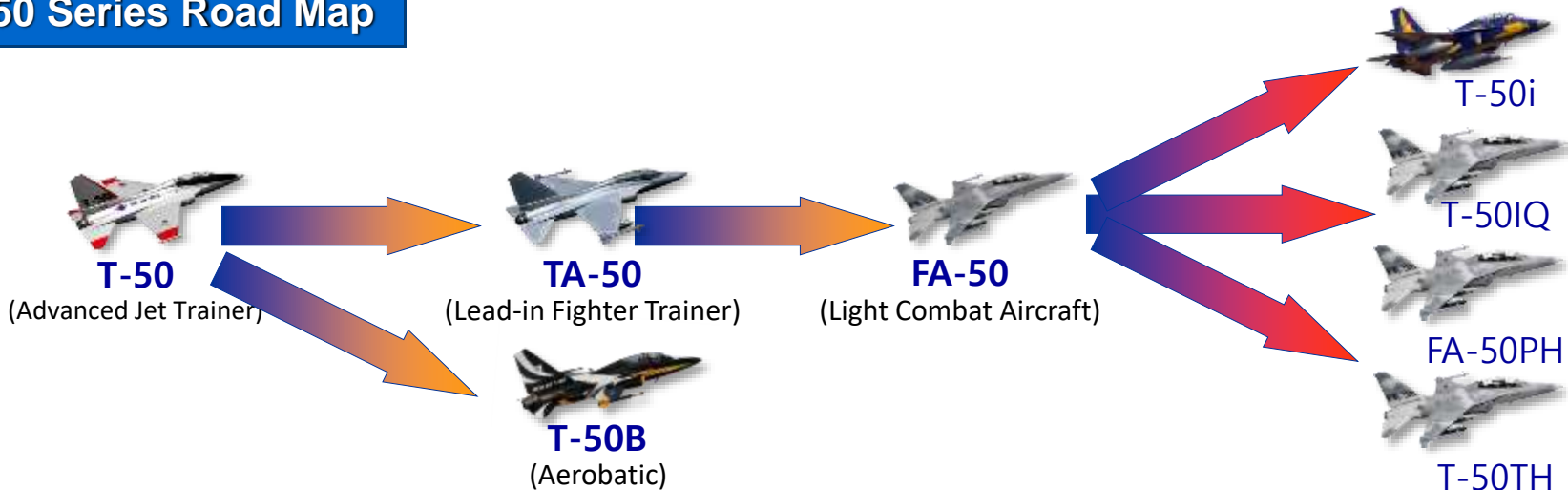
구 분	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26
Major Activities	Start	SRR(3)	SFR(12)	PDR (6)	CDR (9)	R/O (5)	FF (7)		IPA (2)		End (6)
	Preliminary Design		Detail Design		Prototyping		G/T	Initial F/T		Follow-on F/T	

Fixed Wing - T-50/TA-50/FA-50 Program



- **Develop to Train 4th/5th Generation Pilots**
 - Min. Cost & Max. Training Effectiveness
 - Fill Gap between Trainer and Next Gen. Fighter
- **Replace aging F-4, F-5 Fleet as LCA**
- **Total Training System**
 - T-50(FA-50) Aircraft, GBTS and ILS
- **In Production & Full Operations with RoKAF**
 - Over 000 T-50/TA-50/T-50B/FA-50
- **International Customer**
 - Delivery for Indonesia from Sep. 2013 till Jan. 2014
 - Iraq Contract Award Dec. 2013
 - Philippines Contract Award Mar. 2014
 - Thailand Contract Award Sep. 2015

T-50 Series Road Map



Fixed Wing – APT(T-X) Program



T-X Trainer

- T-38 Replacement for Advanced Jet Training (AJT) & Introduction to Fighter Fundamentals (IFF)
- 350 (Specialized UPT) to 500+ (UPT)
 - Ground Based Training System Is Included



Market Potential

- T-38 Replacement for Direct Support Missions
- 100 - 150 Red Air Assets for 5th Gen Training
 - Chase / Test Platform: NASA, AFFTC, etc.

USAF T-X

- 350-500+ Aircraft
- Deliveries Starting 2019

FMS

- 300-400 Aircraft
- Deliveries Starting ~ 2020

USAF Red Air / Direct Support

- 100-150 Aircraft
- Deliveries Starting ~ 2025

USN Red Air

- 50+ Aircraft
- Deliveries Starting ~ 2026

USN T-X

- 150-200 Aircraft
- Deliveries Starting ~ 2029

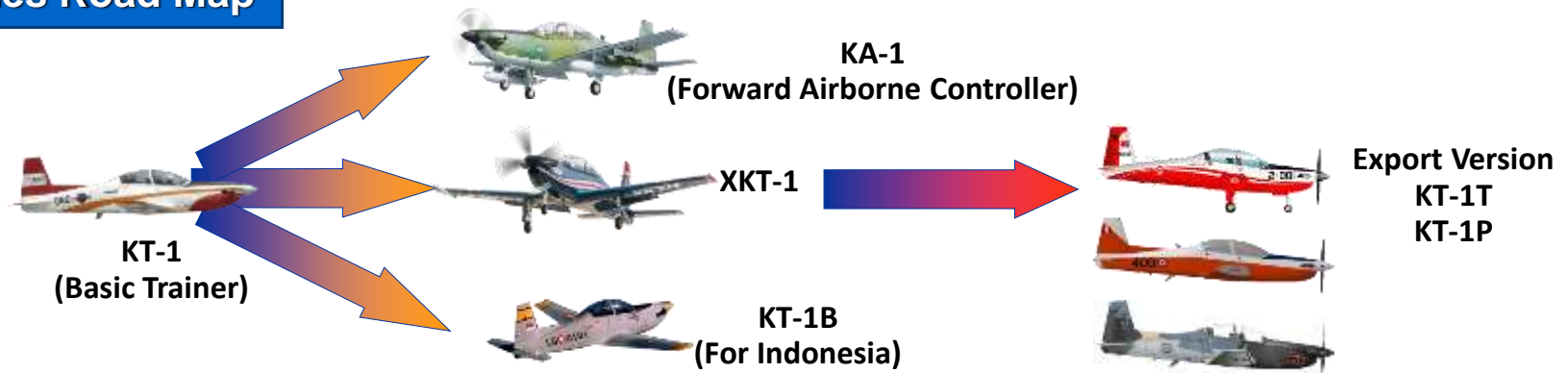
Total Opportunity Potential = 500 to 1,000 Aircraft

Fixed Wing - KT-1 Program



- **Multi-Role:** Basic Training & Light Attack
- **Most Effective Training Solution**
 - Aircraft and GBTS (Ground Based Training System)
 - Smooth Transition (Primary to Advanced)
- **Over 000 KT-1, KA-1 Delivered to RoKAF**
 - Republic of Korea Air Force
- **International Customer**
 - 00 KT-1B : Indonesian Air Force
 - 00 KT-1T : Turkish Air Force
 - 00 KT-1P : Peruvian Air Force (In production)

KT-1 Series Road Map



Successful History for RoKAF and International Customers

Rotary Wing – KUH-1 (Surion)



- **Class** : 8.7 ton (19,200 lbs) Multirole
Capable of 2 pilots and 16 Passengers
- **Adaptation State of the Art Technologies**
 - Military & Para Public
- **Inherently Designed to Cope Various Missions**
 - Air Assault, Tactical Transportation, SAR, etc.
- **Entered Service from 2012**: RoKA and KNPA
 - In Production : over 300 helicopters
 - In Development : Amphibious/ Medical Evacuation

Derivatives

KUH: Korea Utility Helicopter, SAR: Search and Rescue
RoKA: Republic of Korea Army, KNPA: Korea National Police Agency



Medievac



Naval Version



National Forest Dept



Police Dept

Superior Performance for the Demanding Multi-Missions

Rotary Wing – LAH(Light Armed Helicopter)



- Wt Class similar to LCH
- Development: 2016~2022
- Market Potential 450 units (Domestic, International)

LAH Development Program

구 분	'15	'16	'17	'18	'19	'20	'21	'22	'23
Major Activities	Start SRR/SFR	PDR	CDR	FFRR	FF	Initial Production Contract Award	Type Certification	Delivery	
	Pre-Design	Detail Design		Prototyping #1	G/T	Initial F/T	Initial Production		Follow-on F/T

Fixed/Rotary Wing - Sales and Marketing



Aerostructures – Commercial/Military



Commercial (Boeing Programs)



B737 Empennage

Commercial (Airbus Programs)



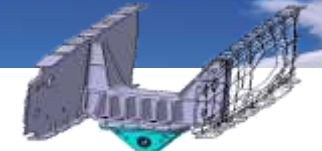
A318/319/320 WTP/WBP

Military (Boeing, LM)

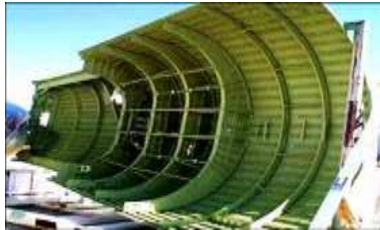


AH-64D Fuselage

International Co-development



**A350 Wing Rib
(Risk Sharing Partner)**



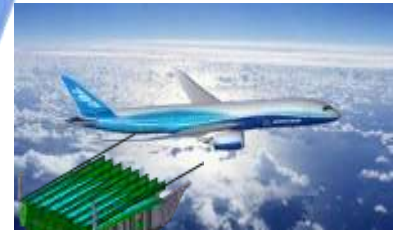
B767 Upper Skin Panel



A320 Upper Shell



**F-15 Main Wing &
FWD Fuselage**



B787 Wing Box



B757/767 FTE



A330/340 Wing Rib



F-16 Fuselage

B787 FTE

WTP Wing Top Panel, WBP Wing Bottom Panel, FTE Fixed Trailing Edge

Global Top Class Supplier with Risk Sharing Partnership (to Boeing/Airbus)

Modification & Maintenance



P-3C Upgrade



- Upgrade & Modification of P-3 Maritime Patrol Aircraft

AEW&C Modification



- E-737 AEW&C modification

F-16 Upgrade & H-53 Depot Maint.



- F-16 Block 30 Upgrade for Service Life Extension
- USN/USMC H-53 Depot Maintenance

AEW&C Airborne Early Warning and Control, USN United States Navy, USMC United States Marine Corps.

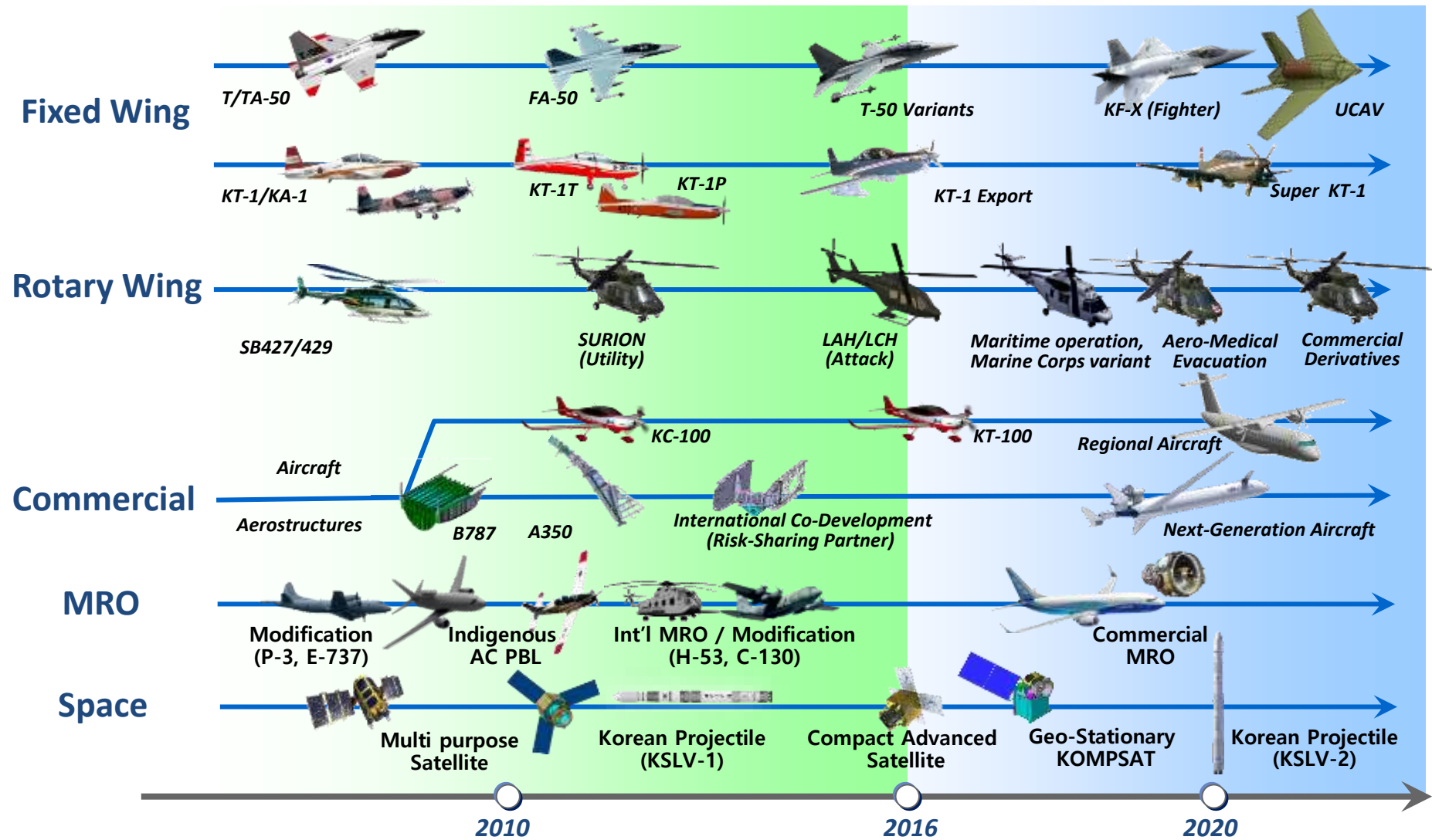
A-10 Wing Replacement



- A-10 wings production for replacement

World Class Proven Partner in MRO & Upgrade/Mod.

Road Map for Future Business



KAI's vision to become a World Top Class Aerospace Company

Who we are..



Total Solution Provider in Aerospace and Defence Field

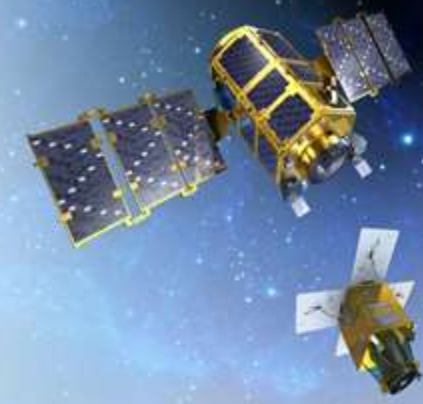
- *Design to Logistics Support*
- *Fixed/Rotary Wing Biz to Space Biz*

New Emerging Aviation Power in Aerospace Industry

- *40th ranked out of top 100 World Aerospace and Defence Companies*
(Source : Flight International)

Fast and Continuous Growing Technical-Oriented System Integrator

Trustworthy Long-Term Partner



KAI Total Solution Provider

Thank You!

