



A-Team 4.0



AIDC Newsletter



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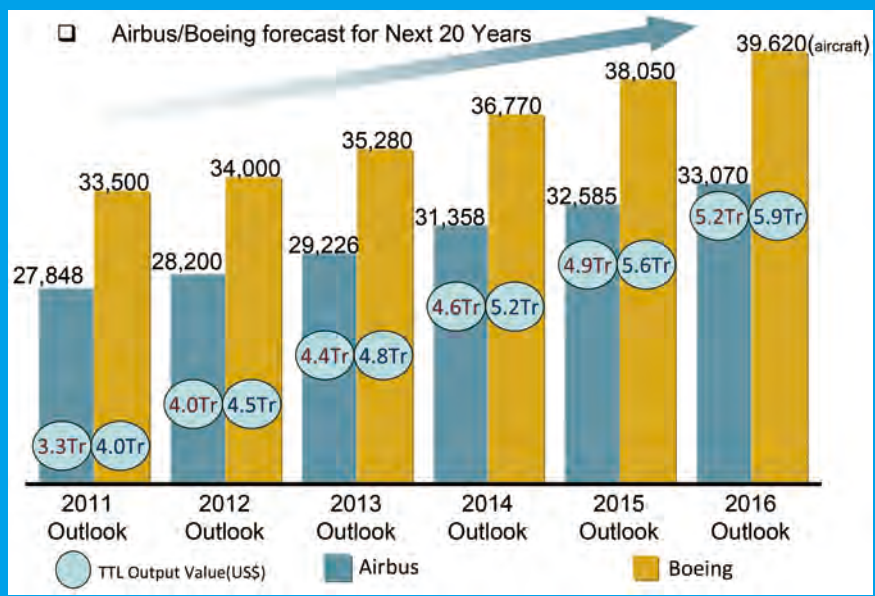
Concept and Implementation Status of Taiwan Aerospace A-Team 4.0

I . International aerospace market US\$ 5.2-5.9 trillion enormous business opportunities for the next 20 years

According to market forecast reports by Airbus and Boeing, global new aircraft demand for the next 20 years is about 33,070-39,620 with US\$ 5.2-5.93 trillion in value, of which Asia-Pacific region tops the demand, accounted for 40% of the output value.

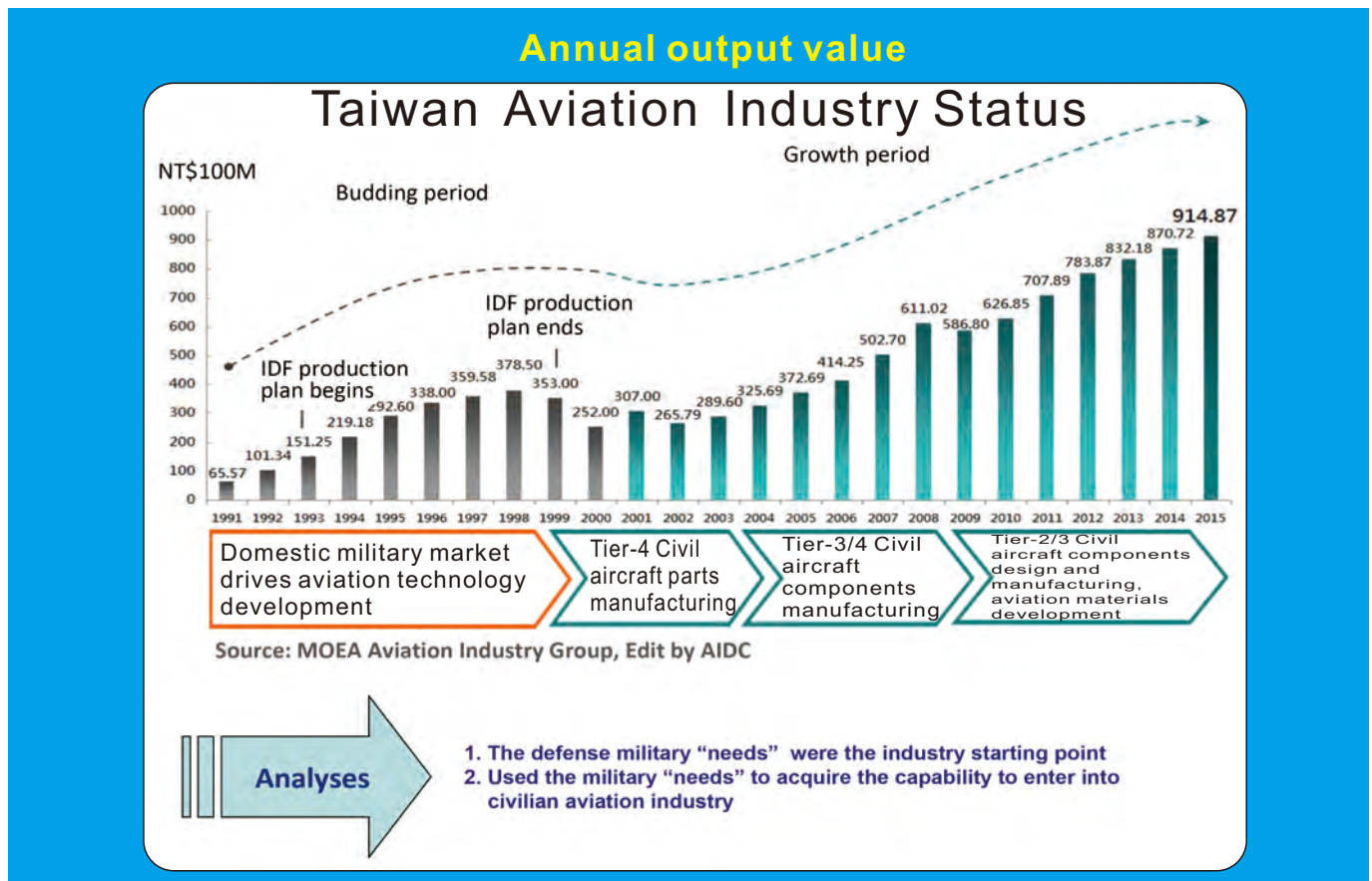
IATA President and CEO Alexandre de Juniac said, "People want to fly. The air travel demand over the next 20 years will be

doubled enabling people and nations to trade, explore, and share the benefits of innovation and economic prosperity making our world a better place." Furthermore, the attributes of air transportation such as time-efficiency, safety and convenience lead the growth of global air transportation accompanied by the development of aircraft manufacturing and will trigger the boost of international aerospace market.



Accordingly, global suppliers for Airbus and Boeing are required to enhance productivity in fuselage, engine and system components. At present, the global aerospace industry is booming with huge business opportunities. In response to the vigorous development of the market, it is expected to see a long period of prosperity in the aviation market.

II. Taiwan Aerospace Industry Status



Taiwan Aviation Output : NT\$91.5B in 2015, creating 140,000 jobs, 60% in MRO and 40% in manufacturing (military 18% and civil 22%), AIDC accounted for 60%. Taiwan aviation output accounts for 0.56% domestic GDP, 0.4% global aviation industry output.

III. On the challenges of the global market, Taiwan aerospace industry is facing a war of survival.

- (I) Aerospace manufacturers of emerging countries exploit government resources and incentives of special regions to gradually gain market share.



(II) Suppliers are under pressure of losing orders in the face of price reduction demands by major international aerospace companies

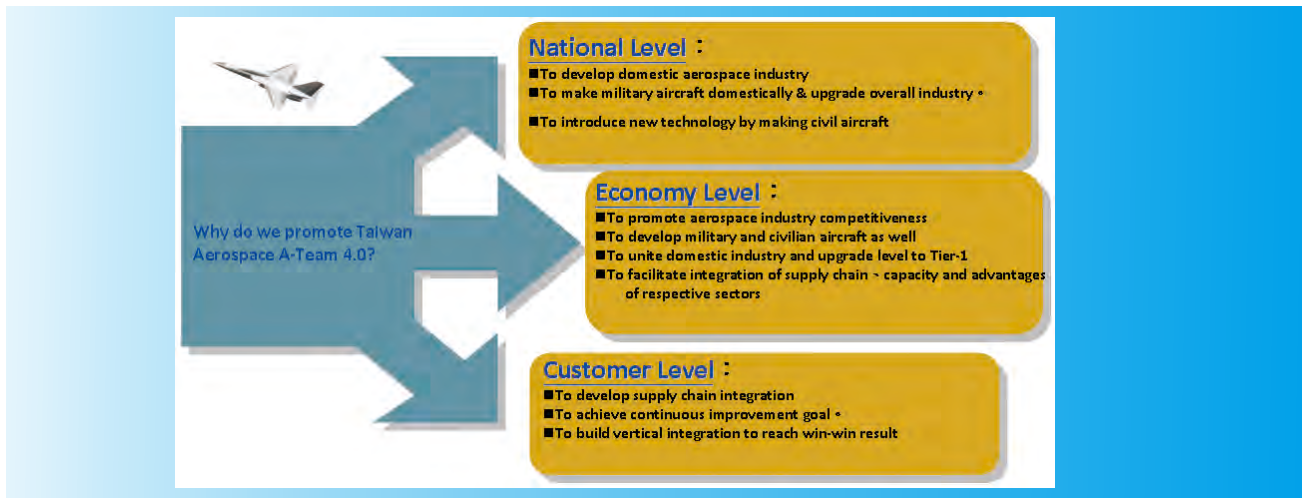


Taiwan's aerospace industry is facing strong competition from the global market; it's like the flying fish caught between the threats of brown boobies in the air and dolphin fish in the water. In

the face of price reduction demands from major aerospace companies such as Boeing and Airbus and the competition of emerging countries Taiwan's aerospace industry has to find a way to survive.

IV. Play World Cup with A-Team 4.0 Alliance

(I) Why do we promote 「Taiwan Aerospace A-Team 4.0」



(II) Hold 「Taiwan Aerospace A-Team 4.0」 conferences

AIDC Chairman Liao Jung-Hsin proposed a concept of A-Team 4.0 at the Taipei Aerospace & Defense Technology Exhibition on Aug. 13, 2015 and a consensus among government, industry and academia was reached in Taiwan Aviation Forum on Dec. 22, 2015. Further, AIDC signed a memorandum of understanding with the Corporate Synergy Development Center on Mar. 1st, 2016 to promote the concept of Taiwan Aerospace A-Team 4.0 by hosting nine conferences in northern, central and southern Taiwan during Mar. 7 to Mar. 17, 2016.



(III) Taiwan Aerospace A-Team 4.0 Inauguration Convention

A - T e a m 4 . 0
C o n v e n t i o n :
Aerospace Industry
D e v e l o p m e n t
C o r p o r a t i o n (A I D C)
hosted an Inauguration
C o n v e n t i o n o n J u n e
2 n d , 2 0 1 6 a t t h e T a i p e i
H o w a r d C i v i l S e r v i c e
I n t e r n a t i o n a l H o u s e
w i t h m o r e t h a n 3 0 0
p a r t i c i p a n t s f r o m o v e r
1 7 0 c o m p a n i e s
a t t e n d e d .



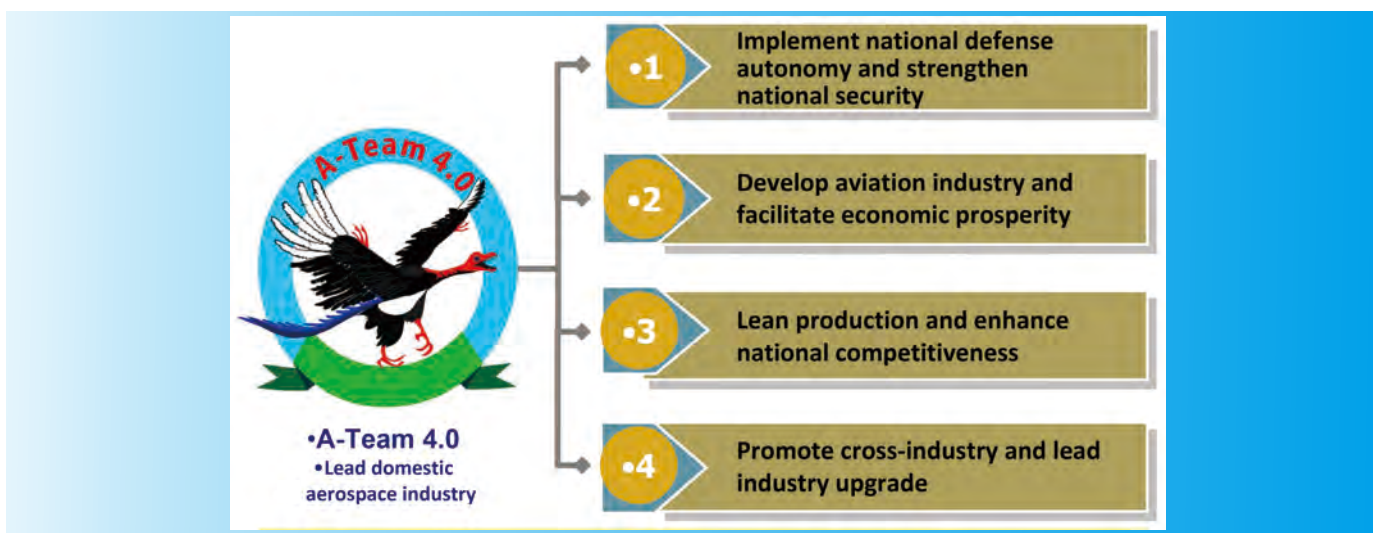
AIDC Chairman, Liao Jung-Hsin encouraged the attendees by quoting Napoleon Bonaparte's words addressing "courage" and "strength" makes "Lion of the Wilderness"; and announced that A-Team 4.0 alliance will turn into the soaring eagle by pursuing "Lean Production" and "Enhance Competitiveness".

By citing Napoleon's words, "The word impossible is not in my dictionary",

Chairman Liao said, we have no choice but to struggle forward. To inspire his troops, Napoleon once said, "Every French soldier carries a marshal's baton in his knapsack", and there are 386 generals' names inscribed inside the Arc de Triomphe in Paris. Likewise, the names of 220 members will be recorded in the history of Taiwan aerospace industry.

V. Cross-Industry Integration, Enhance Competitive Edge

(I) A-Team 4.0 Alliance Mission



(II) Concept

To share a common philosophy (integrity, commitment, innovation, customer trust) is essential to a successful cooperation. AIDC strives to unite domestic industries, including raw material, machinery, parts

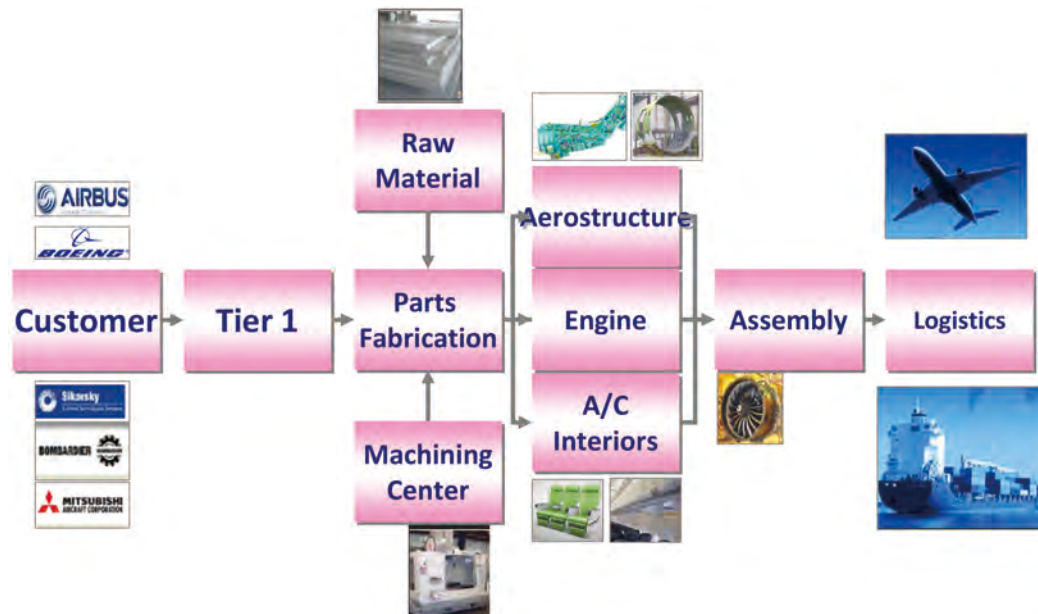
manufacturers and logistics providers with the same values and ideas to build a comprehensive supply chain to enhance the competitiveness and upgrade the aerospace industry level.

VI. Integration of Raw Material, Machinery, Manufacturing, and Logistics

(I) A-Team 4.0 Operation Concept



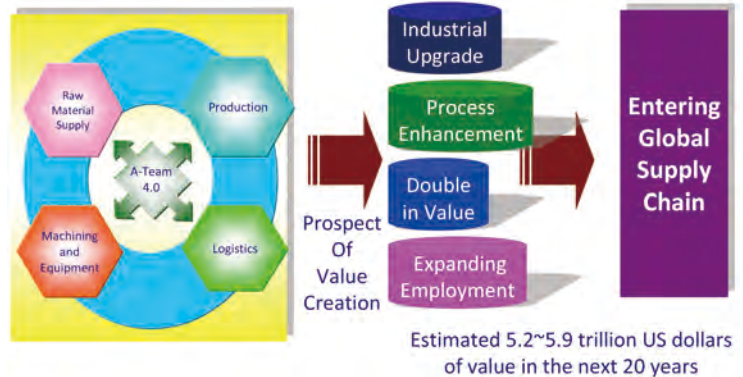
(II) A-Team 4.0 Domestic Industrial Cooperation Flow Chart



The concept and spirit of the A-Team 4.0 is "Cooperation, Dedication, Exploration, and Value Creation. When the external environment gets tough, it is crucial to integrate the domestic combined forces of related industries to form a comprehensive supply chain to face the challenge.

VII. Cross-Industry Alliance; Work-sharing

(I) Vision: Make Taiwan A-Team 4.0 an Essential Part of the Global Aerospace Supply Chain



(II) How does Taiwan A-Team 4.0 help domestic suppliers?



Total 158 Suppliers/289 visitors observed the Industry 4.0 demonstration conducted by AIDC

1. Current Status and Achievements of the A-Team 4.0 Raw Material Category

Raw Material Suppliers	Signing of MOA
<ul style="list-style-type: none"> Invited leading aerospace companies to perform capacity evaluations on domestic raw material suppliers (such as China Steel, GMTC, FPC, UHT....) Assist local suppliers to be certified as approved source of international aerospace companies. Assist suppliers to upgrade to aerospace level GMTC has won approval on its 4330 Bar material for MRJ 	<ul style="list-style-type: none"> Signing strategic alliance agreement is the first step in the campaign of elevating Taiwan aerospace supply chain to aerospace standard. The effort will greatly enhance quality and competitiveness of local raw material suppliers and consequently activate upgrade among the related traditional industries to earn their place in the global aerospace arena.

2. Current Status and Achievements of the A-Team 4.0 Intelligence Machinery Category

Intelligence Machinery	Cooperation Model
<ul style="list-style-type: none"> Suppliers made observation visits to AIDC demonstration plants in April and July 2016. AIDC's NT\$1.3 billion ECMC facility was inaugurated on 2016/4/14. In response to government's call for supporting Taiwan-made products, 80% of ECMC equipment are made by local suppliers. All equipment have been certified by our customer and are expected to manufacture 2 meter diameter engine case parts. 	<ul style="list-style-type: none"> Objective is to enhance competitiveness of machinery providers and elevate machining equipment to aerospace standards. Invite interested suppliers to visit AIDC for concept of aerospace parts fabrication. In-depth discussions with suppliers for R&D on intelligence machinery that can be applied to aerospace products. Solicit government assistance to support suppliers.

3. A-Team 4.0 Member Financing Support

Nailed down financing support from Fubon Financial, who held a seminar to the A-Team members on Sept. 13, 2016 for all the financing options Fubon is able to offer to the industry.

4. Establishment of A-Team 4.0 Communication Platform

Established the A-Team 4.0 website for manufacturers, raw material suppliers, machining producers, logistics providers, and the academia.

<http://www.a-team4.com.tw>

VIII. Lean Production, Enhance Competitiveness

(I) Objective



(II) Integrate Domestic Industry to Promote Aerospace A-Team 4.0



(III) Implement Industry 4.0 to Gain Global Market Opportunity Through High-Valued Production

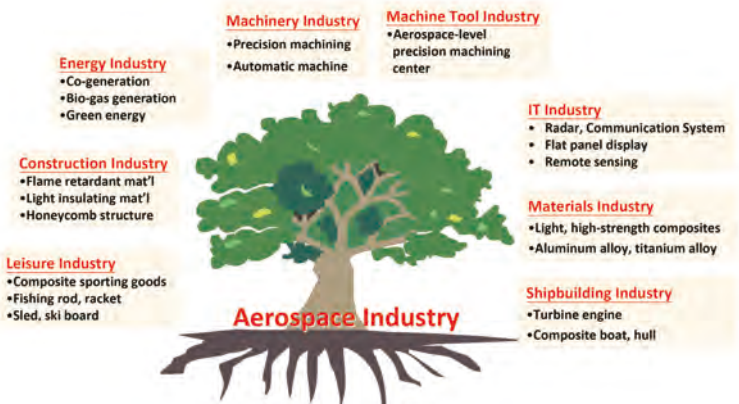


A-Team 4.0 Core Competence = Lean + Industry 4.0 + Complete Industry Supply Chain:

Enhance total competitiveness of aerospace industry supply chain and work toward the goals of “Lean Production; and Enhance Competitiveness”. By introducing LEAN to eliminate waste and improve production capability, and by integrating suppliers of raw material, machinery, parts manufacturers and logistics providers to establish a comprehensive supply chain that meets customer's expectations, improves competitiveness of Taiwan's aerospace industry and achieves the success of the industry.

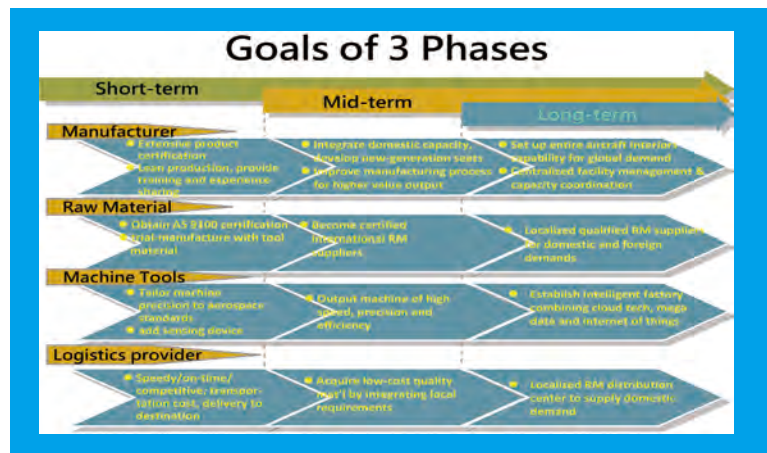
IX. Lead the related domestic industries as the engine of a train to build up domestic economic power

The high industrial correlation of aerospace industry makes it a strategic industry in national development. The aerospace A-Team 4.0 is not only for AIDC supply chain, but also for the self-sustainability of the industry in the time of adversity. Through vertical integration and horizontal work division of the supply chain, and via work division among alliance of different sectors to seek good team members. By sharing and following the same concept and discipline, Taiwan Aerospace A-Team 4.0 alliance rises to international challenges. In addition to the high industry consensus, we still need a definite government policy on aerospace industry and continued support in self-reliant defense; and raise the level of competent authority of aerospace industry. Through government support and industry upgrade to enhance competitiveness and production values, then to achieve self-reliant national defense. Aerospace industry leads the related domestic industries to build up our national economic power.



X. Taiwan's Aerospace A-Team 4.0 to Become an Integral Supply Chain of the Global Aerospace Industry

(I) Goals of three phases



(II) Become an Integral Supply Chain of the Global Aerospace Industry



(Source: Alan Chen, Senior Manager of Program Management, AIDC Procurement Div.)