

EDUCATION TO MEET THE NEEDS OF FUTURE GLOBAL AVIATION COMMUNITY

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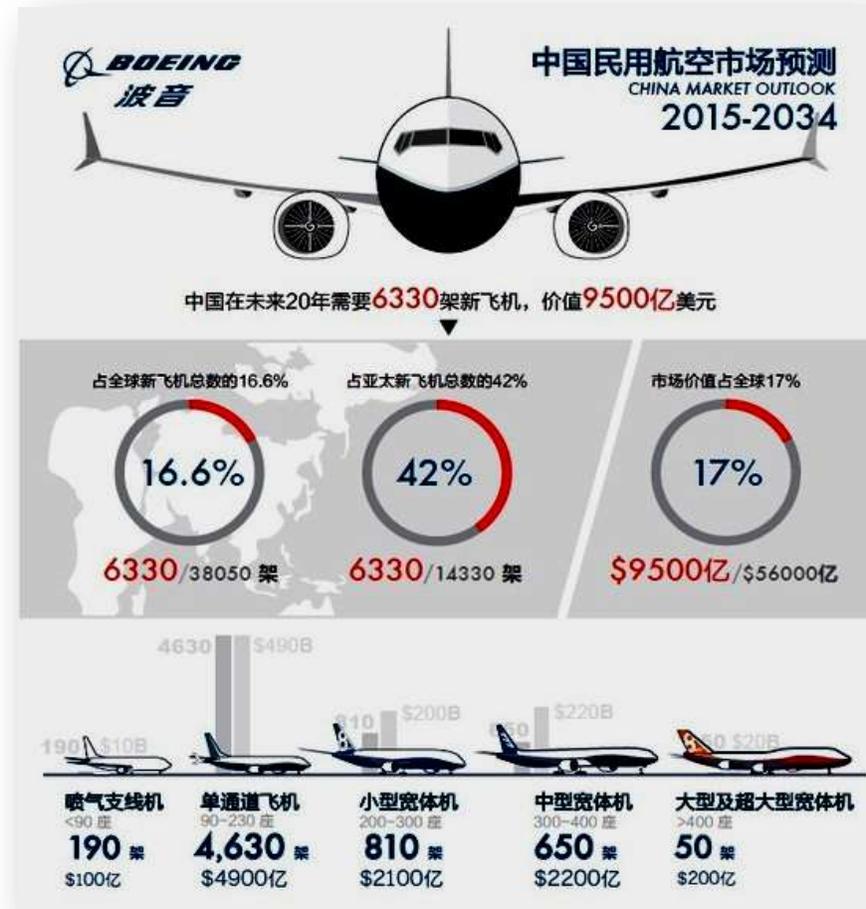
CONTENT





TRENDS OF GLOBAL AVIATION INDUSTRY

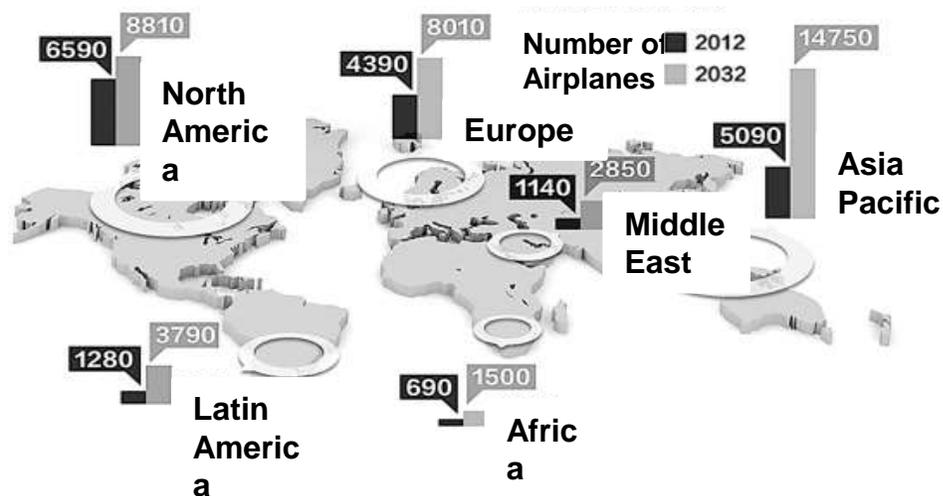
- ◆ Increasing markets and demands for aviation professionals
- ◆ Technology advancement:
 - ◆ Personalization
 - ◆ Automation
 - ◆ Intelligentization
 - ◆ Digitalization
- ◆ Challenges
 - ◆ Safety
 - ◆ Sustainability





DEMAND FOR AVIATION PROFESSIONALS

- ◆ By 2032, 20,530 more airplanes needed globally, among which
 - **9,660 (1.89 trillion USD worth)** needed in Asia Pacific
 - **Boeing:** China will need **7,690** new airplanes by 2037
 - **Airbus:** **110,000** more aviators needed in China by 2035
- ◆ China is scheduled to train nearly **3,000 pilots** and 8,000 support personnel each year, with an annual growth rate of 10%-15%
- ◆ By 2030, China will be the world's **largest civil aviation market** and the **largest training base** for aviation professionals





DEMAND FOR FUTURE TALENTS

- ◆ Capacities in **global vision, systematic thinking, collaboration and innovation**
- ◆ **Ready to face the challenges of the diverse and rapidly changing world**
 - understanding of different cultures and familiarity with general practices
 - systematic thinking and multi-disciplinary knowledge
 - innovation and critical thinking ability to tackle complex problems
 - collaboration and leadership skills





EDUCATION PHYLOSOPHY FOR NEXT GENERATION AVIATION TALENTS

◆ Qualities of future talents





EDUCATION PHYLOSOPHY FOR NEXT GENERATION AVIATION TALENTS

◆ Ways to educate future talents



Combine teaching with scientific research



Combine teaching with Industrial practice



International cooperation



BEIHANG UNIVERSITY



History

one of China's very first key universities established in **1952** through merger of the aeronautics departments of **8** top Chinese universities

Tsinghua University, Tianjin University
Xiamen University, Sichuan University

.....

Today

a leading research university in China listed in all national initiatives for universities

National 211 Project

to develop key disciplinary areas (112 universities)

National 985 Project

to build world-class universities (39 universities)

National 2011 Project

to promote “collaborative innovation”

National Double World-Class Project **NEW**

Among one of the **36 World-Class Universities** in China
7 disciplines selected as World-Class Disciplines





BEIHANG UNIVERSITY

◆ 33 Schools

- Aeronautical science & engineering
- Astronautics
- Automation science & electrical engineering
- Computer science & engineering
- Cyberspace Security
- Electronic & information engineering
- Energy & power engineering
- Instrument science & optoelectronics
- Materials science & engineering
- Mechanical engineering & automation
- Microelectronics
- Reliability & systems engineering
- Software engineering
- Space & environment
- Transportation science & engineering

- Biological science & medical engineering
- Chemistry
- Mathematics & systems science
- Physics

- Economics & management
- Foreign languages
- Humanities & social sciences
- Law
- New media art & design
- Political science

- Honors College
- Advanced studies in humanities & social sciences
- International School
- Sino-French Engineer School
- General Engineering
- Flight college (pilot training)
- Beidou Belt & Road School



BEIHANG UNIVERSITY



- ◆ Ranked **1st worldwide** in **Aerospace Engineering** according to ShanghaiRanking 2018 
- ◆ Ranked **1st** nation-wide for per faculty member research funding
- ◆ Ranked **1st** nation-wide for total number (8) of the First Prizes of National Technology Invention Awards

Aeronautics & Astronautics

materials,
mechanical
aeronautics,
astronautics, energy
and power,
instrumentation.....

Information & Communication Technology

electronics, cyber
security, computer
science, software
engineering,
automation





BEIHANG UNIVERSITY

◆ National ranking for main disciplines

A+ Top 2%	<ul style="list-style-type: none">• Aeronautics and Astronautics• Instrument Science and Technology• Materials Science and Engineering• Software Engineering
A Top 2%-5%	<ul style="list-style-type: none">• Computer Science and Technology• Control Science and Engineering• Management Science and Engineering
A- Top 5%-10%	<ul style="list-style-type: none">• Mechanics• Transportation Engineering• Biomedical Engineering• Mechanical Engineering• Information and Communication Engineering• Public Administration• Foreign Language and Literature

✓ Ranked **11th** nationally with four **A+** disciplines

✓ Ranked **12th** nationally with all **A-level** disciplines



BEIHANG UNIVERSITY

A large number of **chief commanders and chief designers of AVIC, COMAC, AECC and other leading enterprises in China's aeronautical industry** are Beihang Alumni.

A large number of **chief commanders and chief designers in China's astronautical industry** are Beihang Alumni.

The **Flight College** of Beihang University has educated more than 6000 pilots, 4500 of which worked at **China Southern Airlines**



BEIHANG'S EDUCATION PRACTICE

◆ International Education Flagship Programs



International School

2,000+ International students from over **110** countries

UN Regional Center for Space Science and Technology Education in Asia
And the Pacific (China)

APSCO Education and Training Center in China



Sino-French Engineer School

Founded in 2005 with an annual enrollment **120** students

Strong collaboration with French partners in cultivating high-calibre
engineers with international recognition



School of General Engineering

Founded in 2015 with an annual enrollment of **50** students

To develop top-notch engineer with international competence & leadership
skills with **international faculty** and **small-class models**



BEIHANG'S EDUCATION PRACTICE

◆ Innovation and entrepreneurship



Extracurricular Innovation & Practice Platform

Launched in 1990, held for 28
consecutive years

The most prestigious and widely-
participated scientific competition
at Beihang University



China's "Wright"

Feng Ru(1884~1912)
The first aircraft designer
The first aircraft maker
The first pilot



BEIHANG'S EDUCATION PRACTICE

◆ Innovation and entrepreneurship

Unicorn Unmanned Vehicle System



- 1st Prize of Beihang “Feng Ru Cup” Technology Competition
- 2nd Prize on Technology of Beihang “Challenge Cup” National Undergraduates Academic Science and Technology Competition
- Champion of China’s “Internet+” Undergraduates Innovation and Entrepreneurship competition



Inventor:

- LI Chen, undergraduate of School of Computer Science and Engineering, Beihang University
- WANG Chuan, undergraduate of School of Aeronautic Science and Engineering, Beihang University
- Co-founded Tianxun Innovation and Technology Corp. Ltd.



- **The company is worth RMB 200 million and its annual sale reaches 10 million**



BEIHANG'S EDUCATION PRACTICE

◆ International Education Cooperation



University	Aviation Programs	Degree
Ecole Nationale de l'Aviation Civile	Airworthiness	Double Master
Cranfield University	Power Engineering	Double Master
Politecnico di Milano	Electromechanical Engineering	Double Master
	Advance Aircraft Design	Double PhD
Moscow Aviation Institute	Aeronautical Engineering	Double Master

◆ Industrial Partners



THANK YOU!
