

## Development Achievements and Future Outlook of China's Aluminium Industry

Kang Yi

President

China Nonferrous Metals Industry Association, Beijing, China

Corresponding author: kangyi\_nfsoc@163.com

<https://doi.org/10.71659/icsoba2025-kn001>

**Abstract**



Over the past 70 years, China's aluminium industry has achieved remarkable success. It has transformed from a nation with aluminium shortages to the world's largest producer and consumer of aluminium. Technological innovation has driven comprehensive industrial transformation and upgrading; significant progress has been made in green and low-carbon development; and international capacity cooperation has delivered notable results.

The next 5 to 10 years will be a critical period for the development of China's aluminium industry. Efforts must be made to strengthen original and collaborative innovation, achieve self-reliance and strength in scientific and technological innovation, further promote domestic mineral exploration to increase bauxite reserves, pursue green, low-carbon, and sustainable development, comprehensively upgrade digital and intelligent infrastructure, and deepen international capacity cooperation – contributing Chinese wisdom and strength to the high-quality development of the global aluminium industry.

**Keywords:** China aluminium industry, Technological innovation, Low-carbon development, China bauxite reserves.

### 1. Summary of the conference presentation document

*(Note from ICSOBA's Editor: The following text was prepared from the Chinese PowerPoint file provided by the author, using M365 CoPilot. Please note that the quality of the English may not meet the usual editorial standards, and some concepts may remain vague.)*

This year marks the 76<sup>th</sup> anniversary of the founding of New China. Over the past 76 years, the aluminium industry has worked hard and forged ahead, building a modern industrial system with complete categories, a sound structure, huge capacity, and advanced technology. From a backward situation, it has risen to become the world's largest aluminium producer, making positive contributions to China's economic and social development and the progress of the global aluminium industry.

#### 1.1 Development Achievements

Overall strength of the aluminium industry has made historic leaps.

Technological innovation drives comprehensive industrial transformation and upgrading.

Significant achievements in green and low-carbon development.

International capacity cooperation for mutual benefit.

Substantial improvement in overall corporate strength.

#### 1.2 Key Data Highlights

China has ranked first in primary aluminium production for 24 consecutive years.

**Table 1. Share of Global Bauxite Production by Major Producing Countries in 2024.**

Country	World production share (%)
Guinea	30.7 %
Australia	25.3 %
China	18.9 %
Brazil	7.6 %
India	6.6 %
Others	10.9 %

**Table 2. Share of Global Alumina Production by Major Producing Countries in 2024**

Country	World production share (%)
China	58.9 %
Australia	11.9 %
Brazil	7.3 %
India	5.8 %
Indonesia	3.0 %
Russia	2.1 %
UAE	1.6 %
Saudi Arabia	1.3 %
Ireland	1.2 %
Jamaica	1.0 %
Others	5.9 %

**Table 3. Share of Global Primary Aluminium Production by Major Producing Countries in 2024.**

Country	World production share (%)
China	60.3%
India	5.8%
Russia	5.2%
Canada	4.5%
UAE	3.7%
Bahrain	2.2%
Australia	2.1%
Norway	1.8%
Brazil	1.5%
Malaysia	1.2%
Others	11.8%

**Table 4. Historical Production Growth in China (kt)**

Year	Alumina	Primary Aluminium	Recycled Aluminium	Aluminium Products
1954	27	2		5.5 (1956)
1978	780	300	4	110
2000	4 330	2 790	750	2 170
2012	40 720	23 530	4 830	25 940
2020	72 850	37 250	7 250	44 520
2023	82 440	41 590	9 500	46 950
2024	88 520	44 010	10 550	49 000