



CHINA'S APPROACH TO CLIMATE-FRIENDLY TRANSPORT

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Outlines

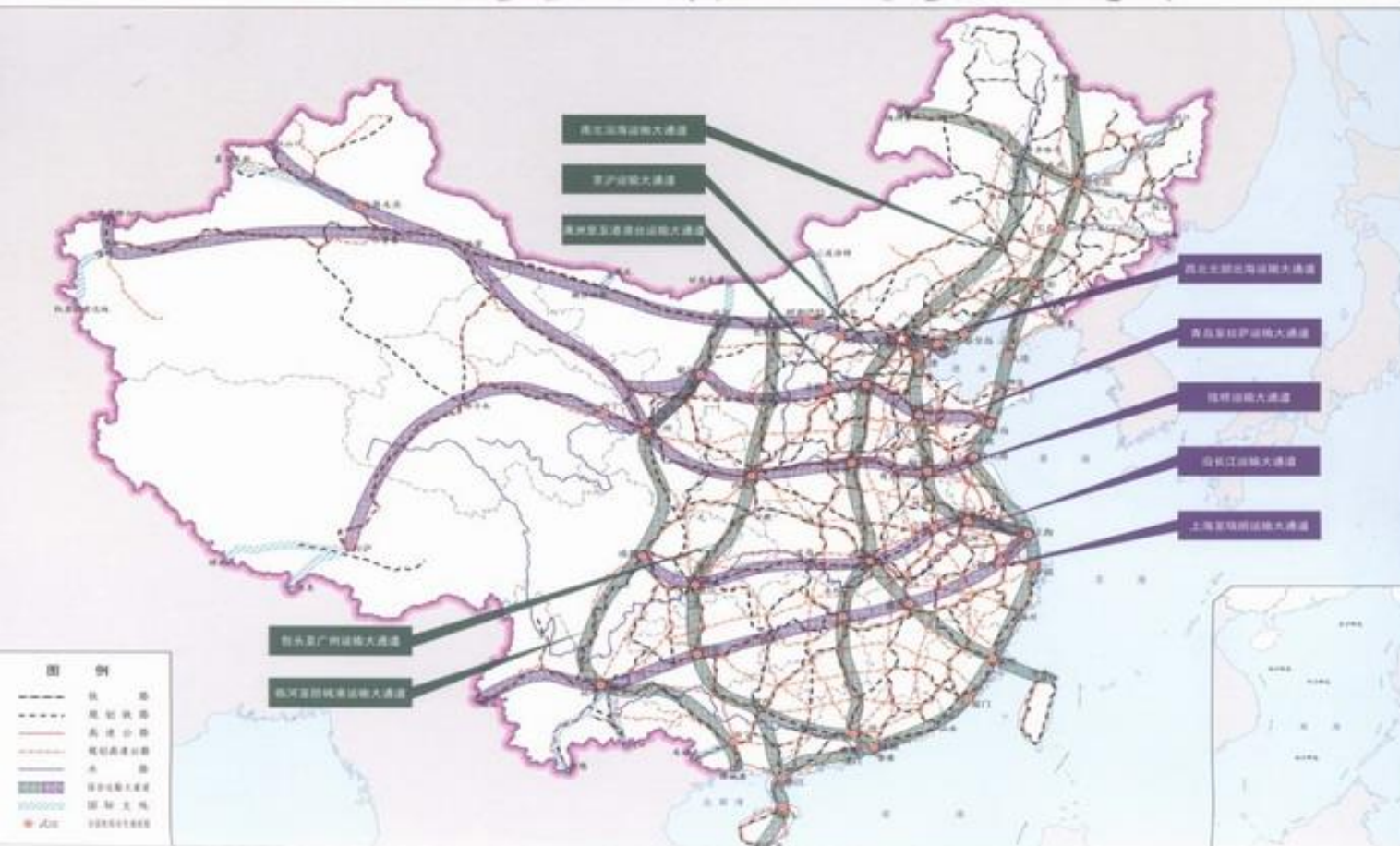
- Characteristics of China's Transport
- Visions and Goals of Future Transport
- China's Approach to Low-carbon Transport



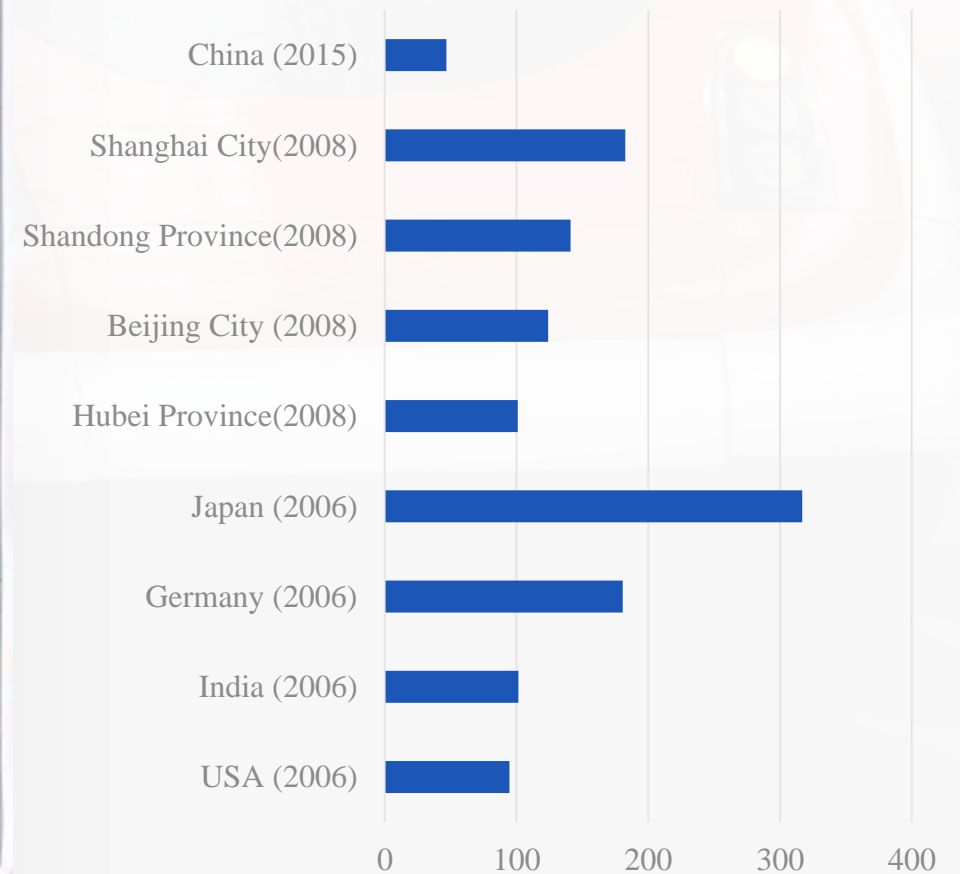
Characteristic 1: China has established one of the biggest comprehensive transport network in the world, but with a lower road network density than developed countries on average.

- A transport network with five vertical and five horizontal
- Longest high-speed railways, expressways and urban railways and most large coastal harbors

综合运输大通道和全国性综合交通枢纽示意图



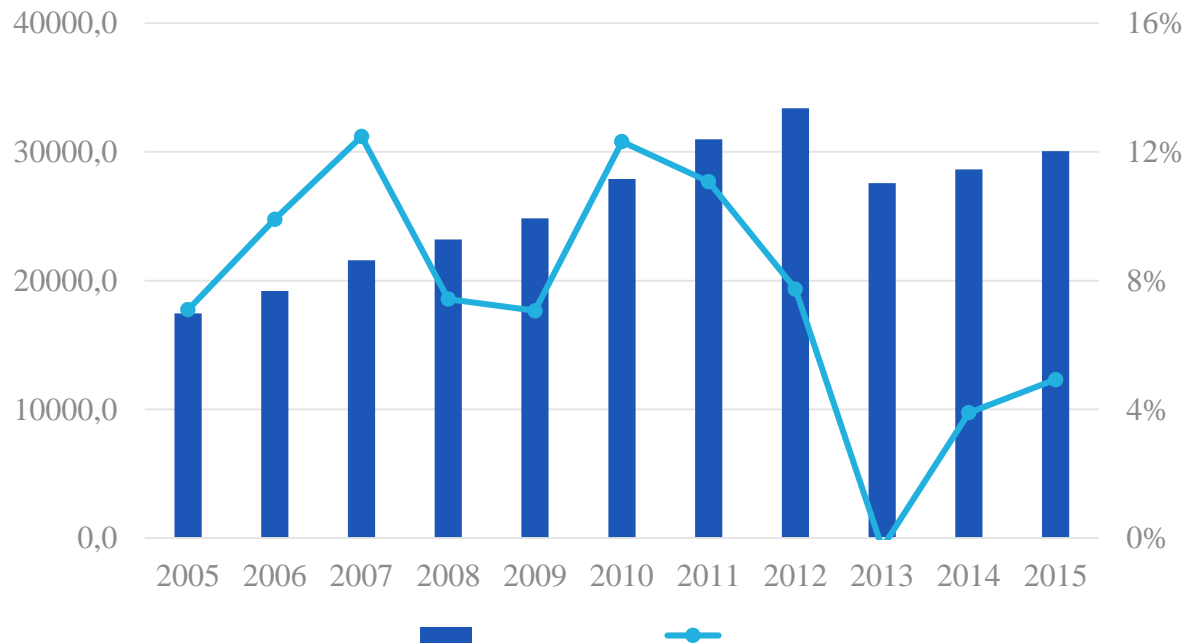
Comparison of Road Network Density



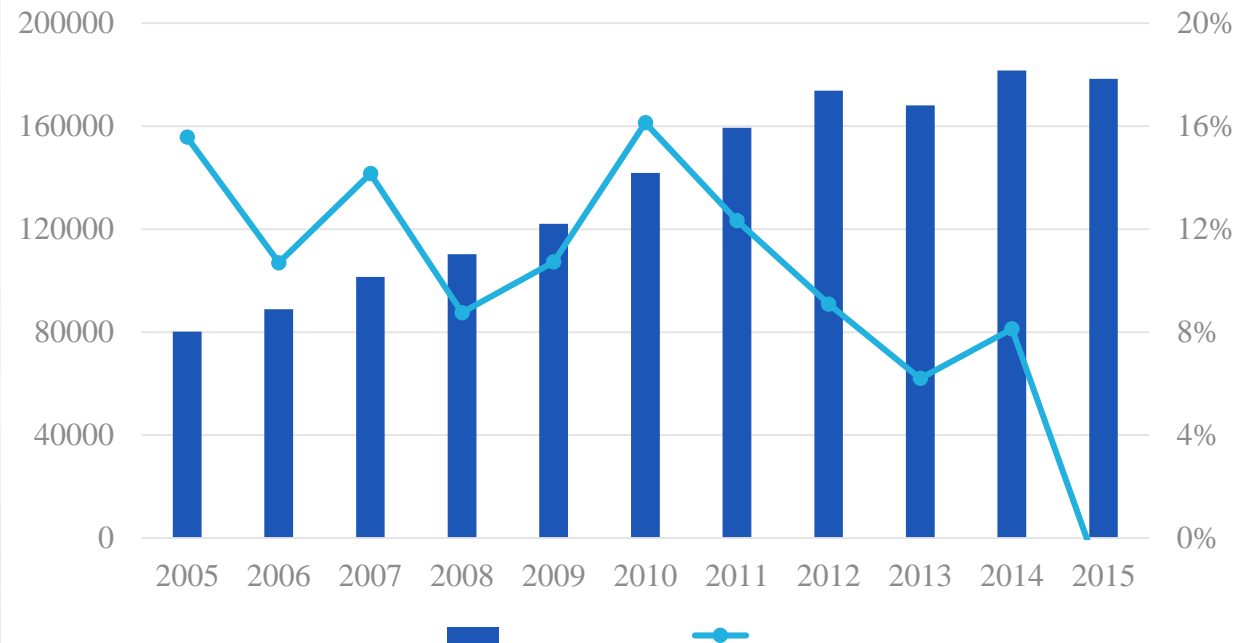
Characteristic 2: the scale of China's transportation has experienced great development

- 2005–2015: Passenger volume has increased by 70%, and freight volume has increased by 120%.

Passenger-Kilometers: Total and annual growth rate



Freight Ton-Kilometers: Total and annual growth rate

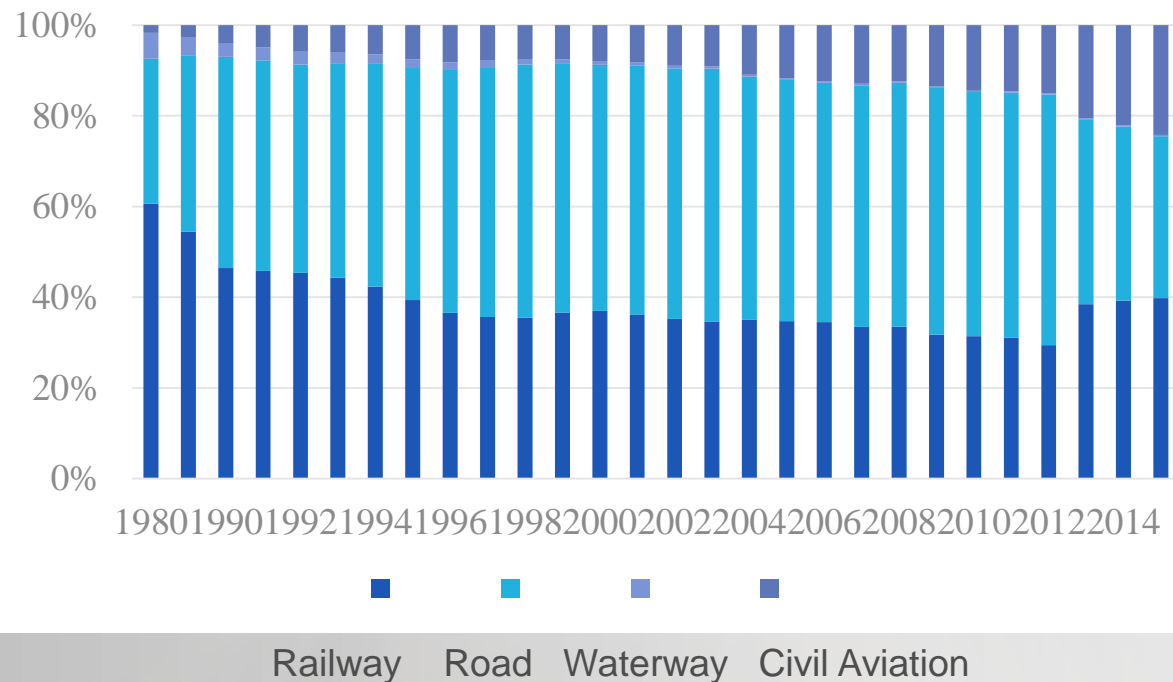


*2013-2015 : Due to the scope of statistics

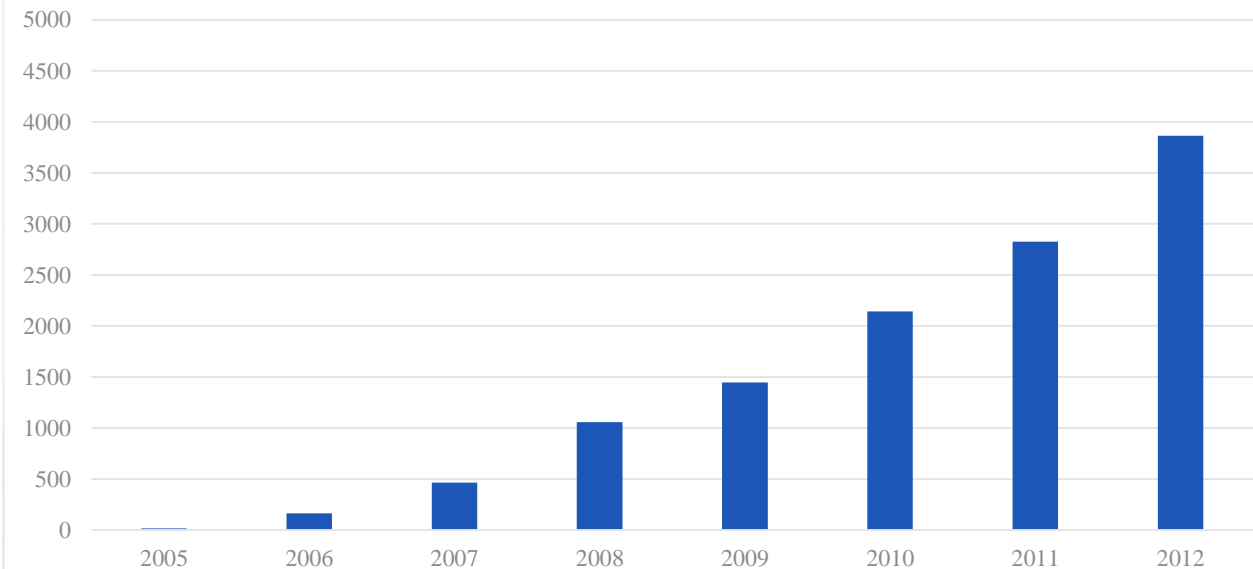
Characteristic 3: Each transport means is featured with its own characteristics.

- Passenger Transport: Road transport is dominant, but high-speed railway has seen rapid growth in recent years.

Share of Passenger-Kilometers



Total High-Speed Railway Passenger-Kilometers



Passenger Turnover of High-speed Railway

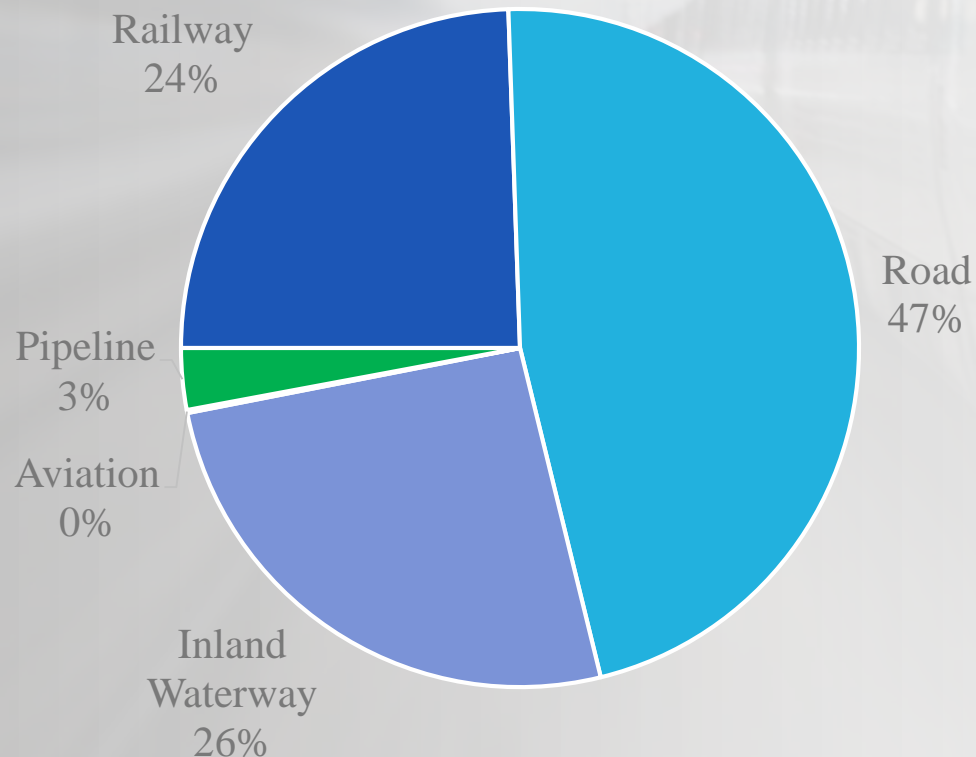
HU-KUN high-railway: the newest (April 2017) and the most beautiful railway in south China



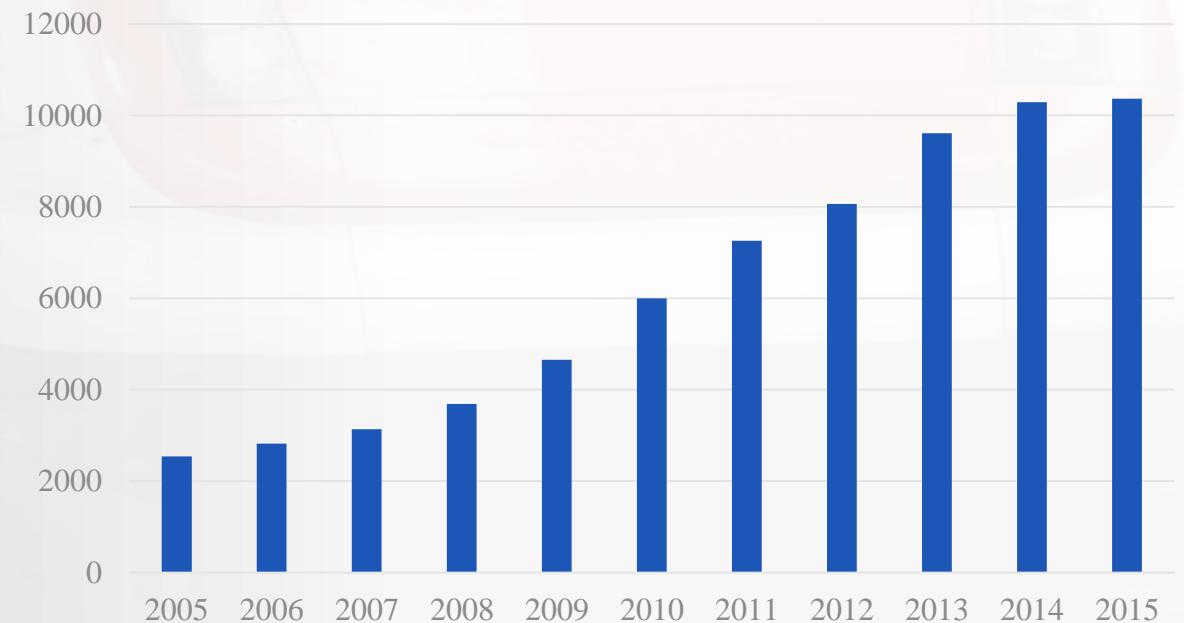
Characteristic 3: Each transport means is featured with its own characteristics.

- Freight Transport: Road transport is dominant in freight transport and has seen rapid growth in transport capacity in recent years.

Share of Freight Kilometers

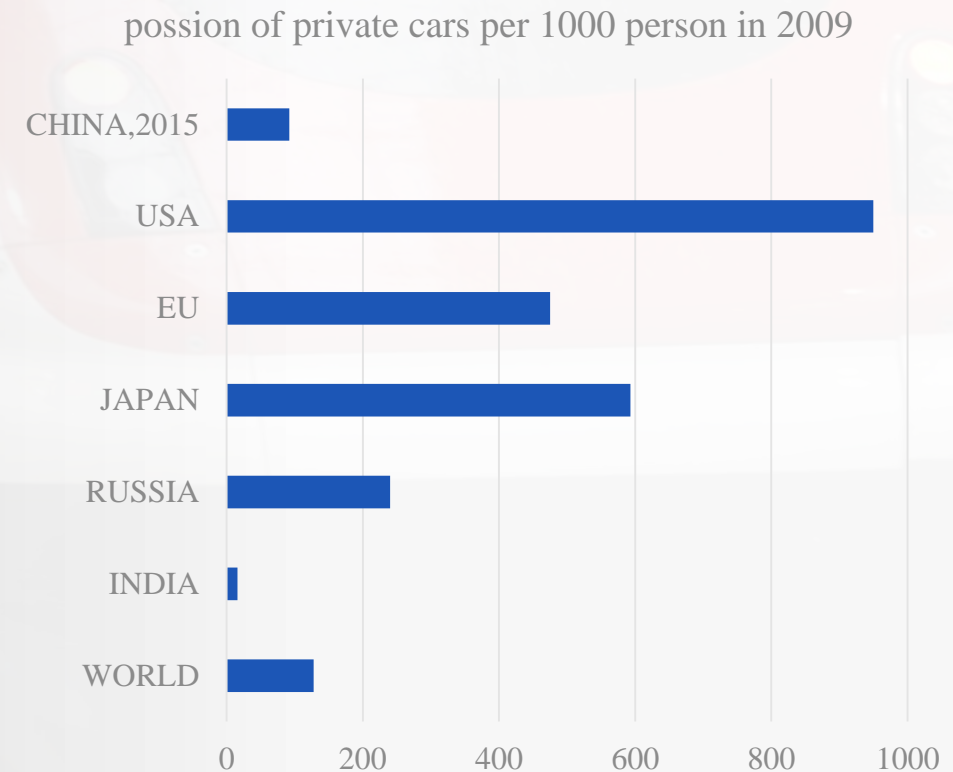
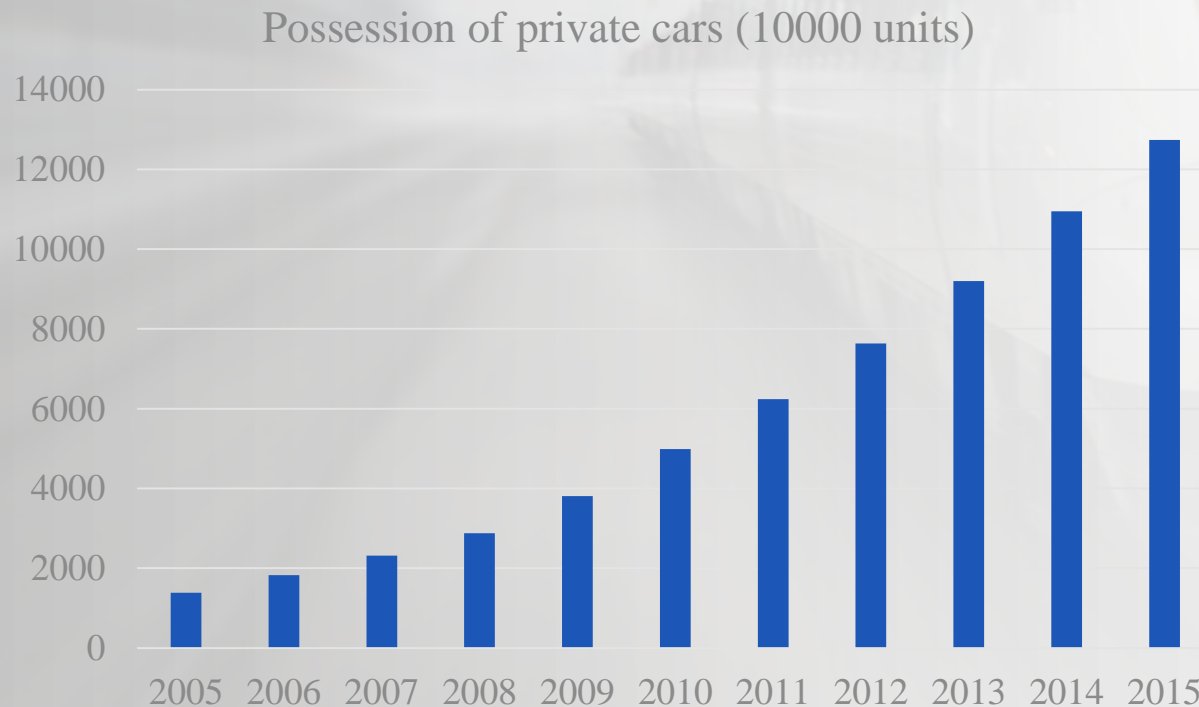


Capacity of trucks (10000 tons)

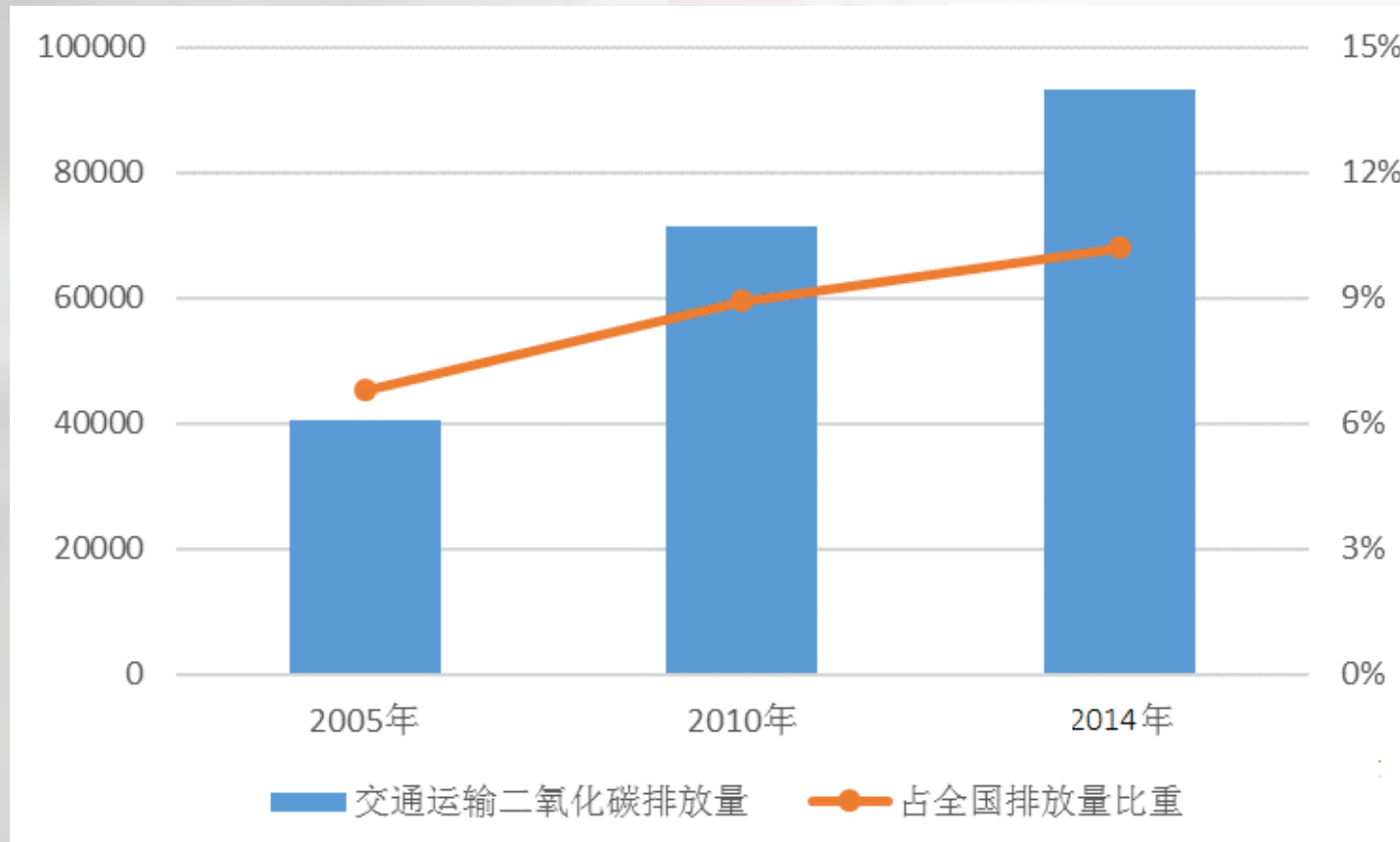


Characteristic 3: Each transport means is featured with its own characteristics.

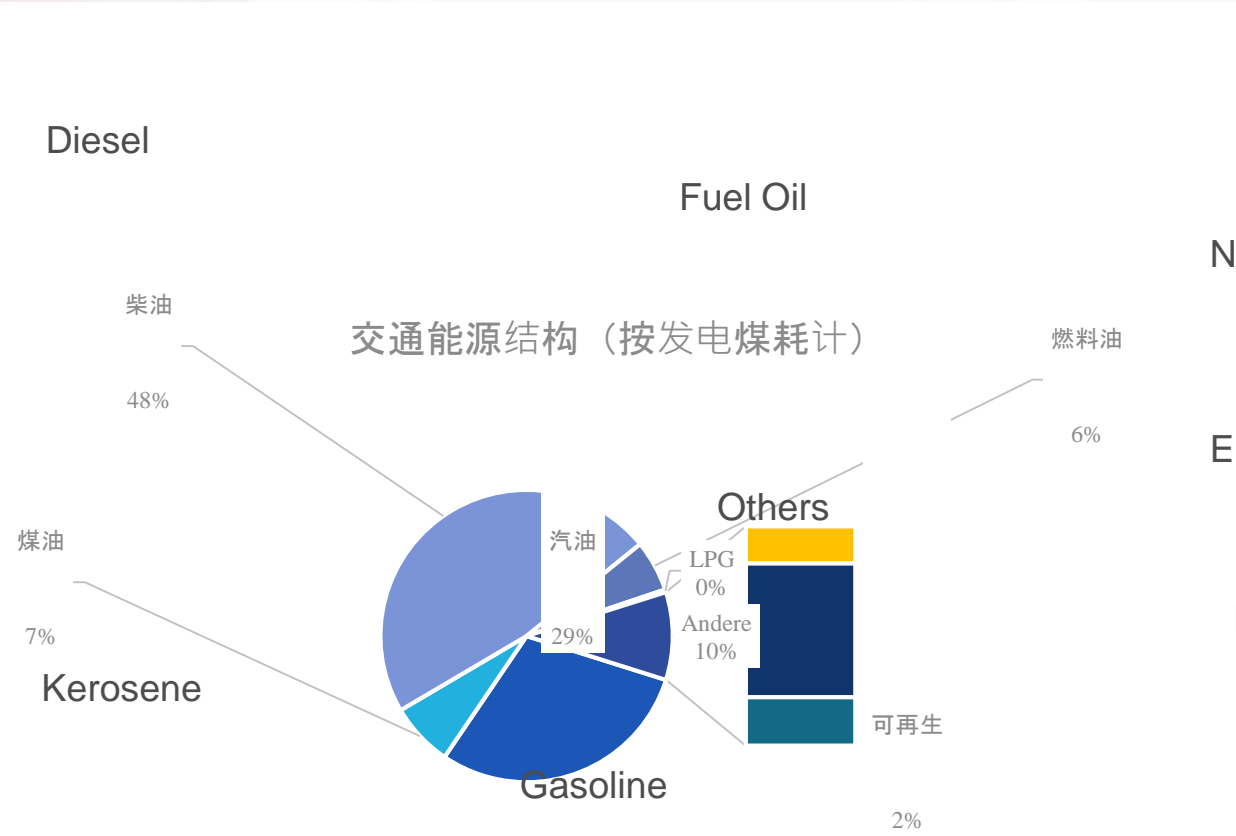
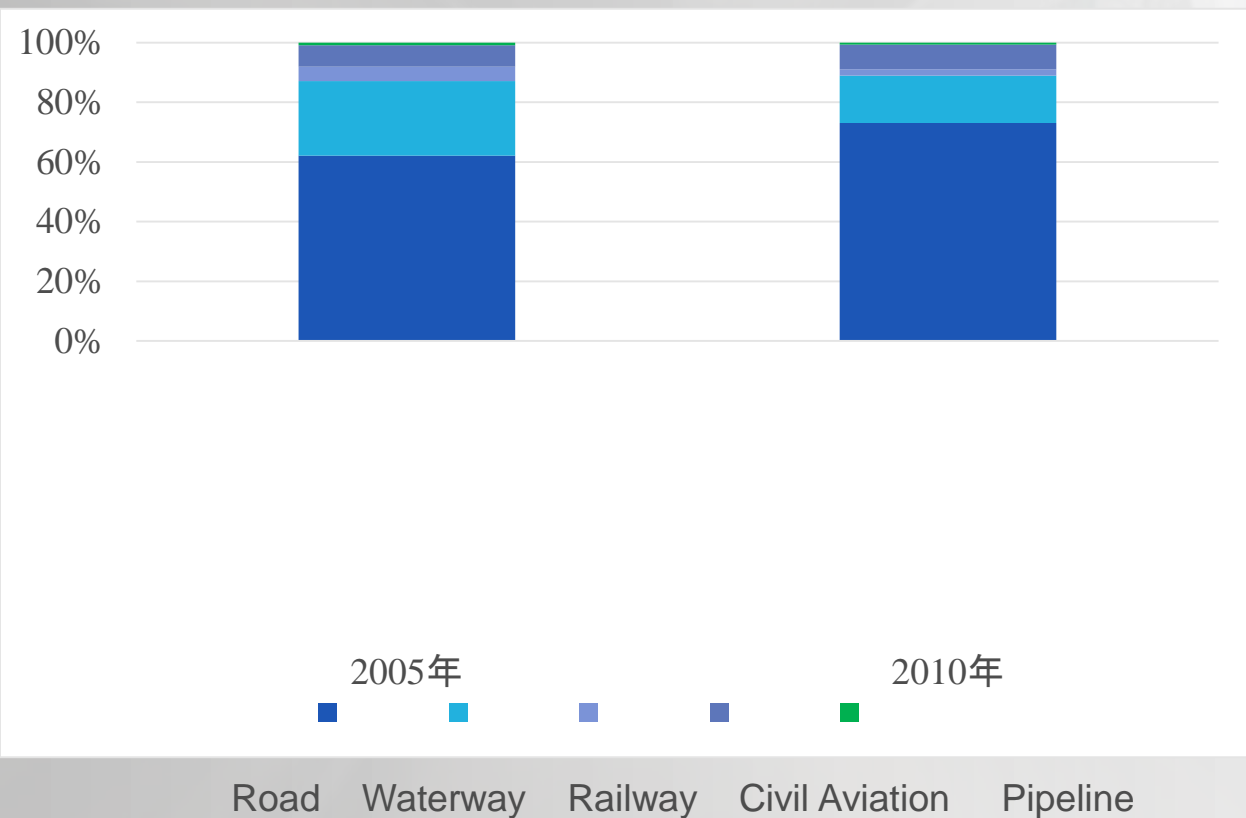
- Urban Transport: The number of cars has rapidly increased, but the average number per capita is still lower than that of developed countries.



Characteristic 4: Energy consumption / CO2 emission: account for 9% of the total



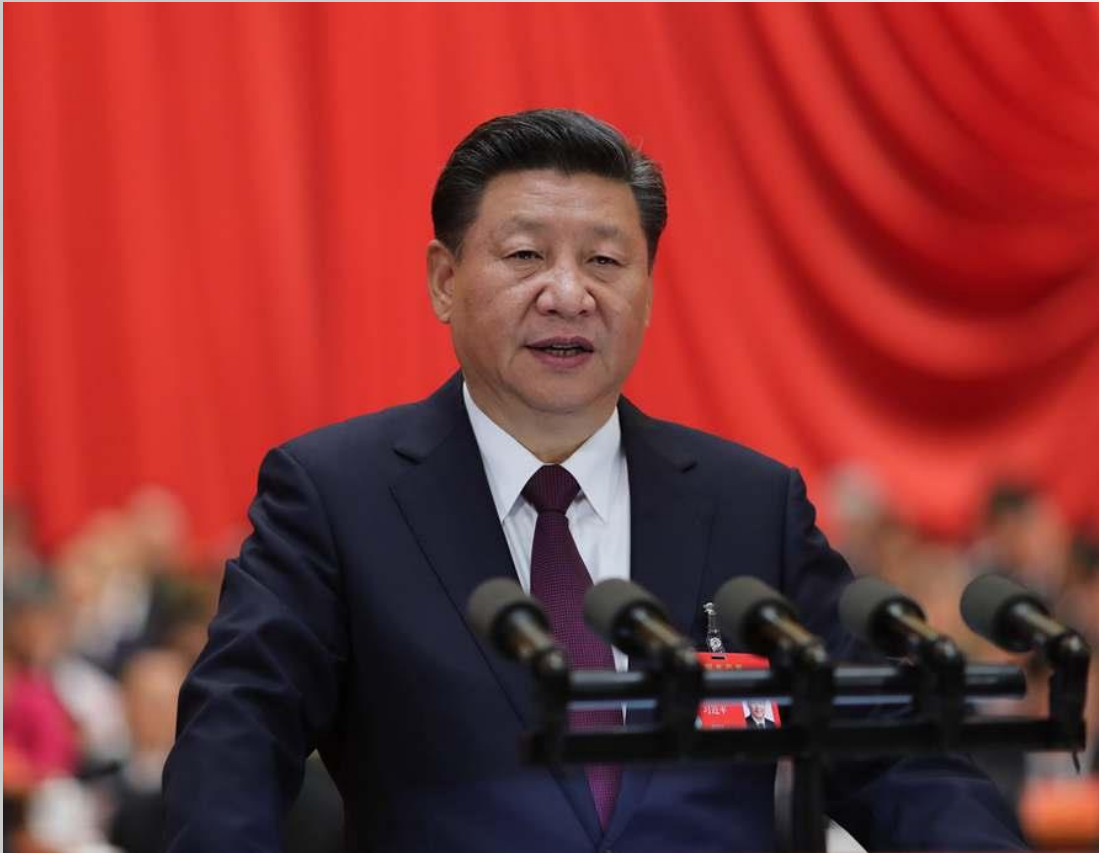
Characteristic 5-Structure of Energy consumption: Road transport hugely dominates energy consumption, and oil products comprise 90% of the total transport capacity.



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President Xi Jinping delivered inspiring speeches at the just-concluded 19th CPC National Congress.



- New Thought: The Thought on Socialism with Chinese Characteristics for a New Era
- New Target: China's goal is to realize basic modernization by 2049.
- New contradiction: major social contradiction has changed to the growing contradiction between the need for a better life and the uneven and imbalanced development.

The national plan has pointed out directions for transport development

➤ “13th Five-Year Plan” Development Plan for Modern Integrated Transportation System

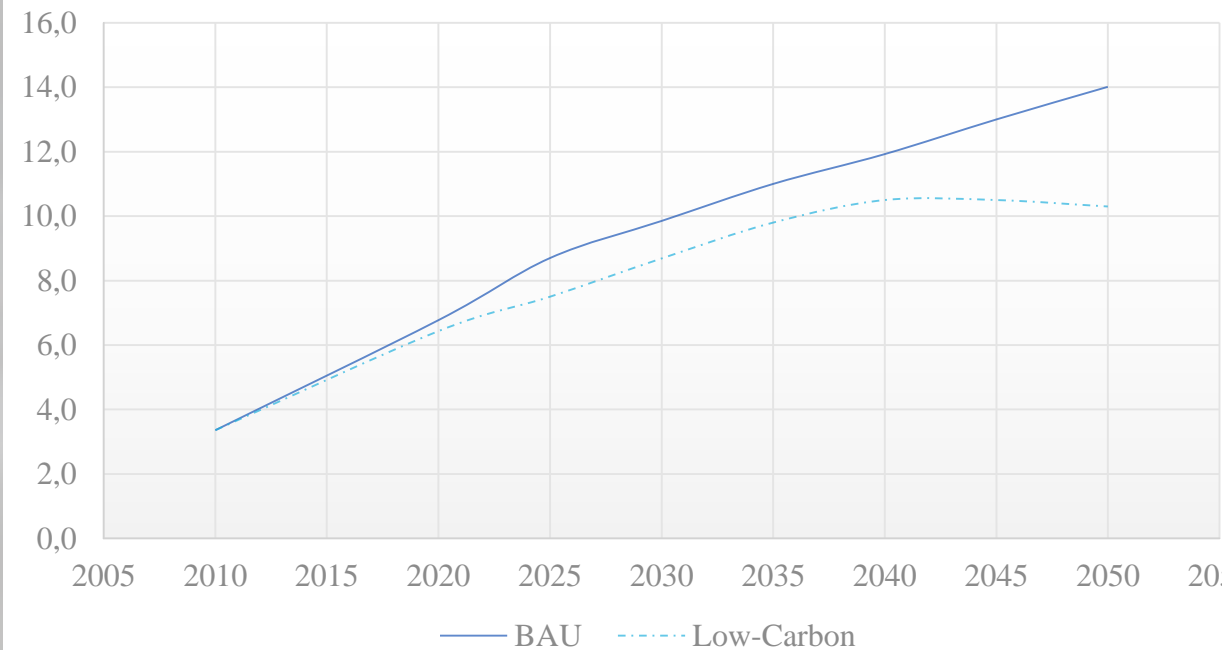
By 2020, a safe, convenient, efficient and green modern integrated transportation system will be completed. Parts of the country may take the lead to realize basic modernization of transportation.

➤ Medium and Long Term Plan for Rail Networks

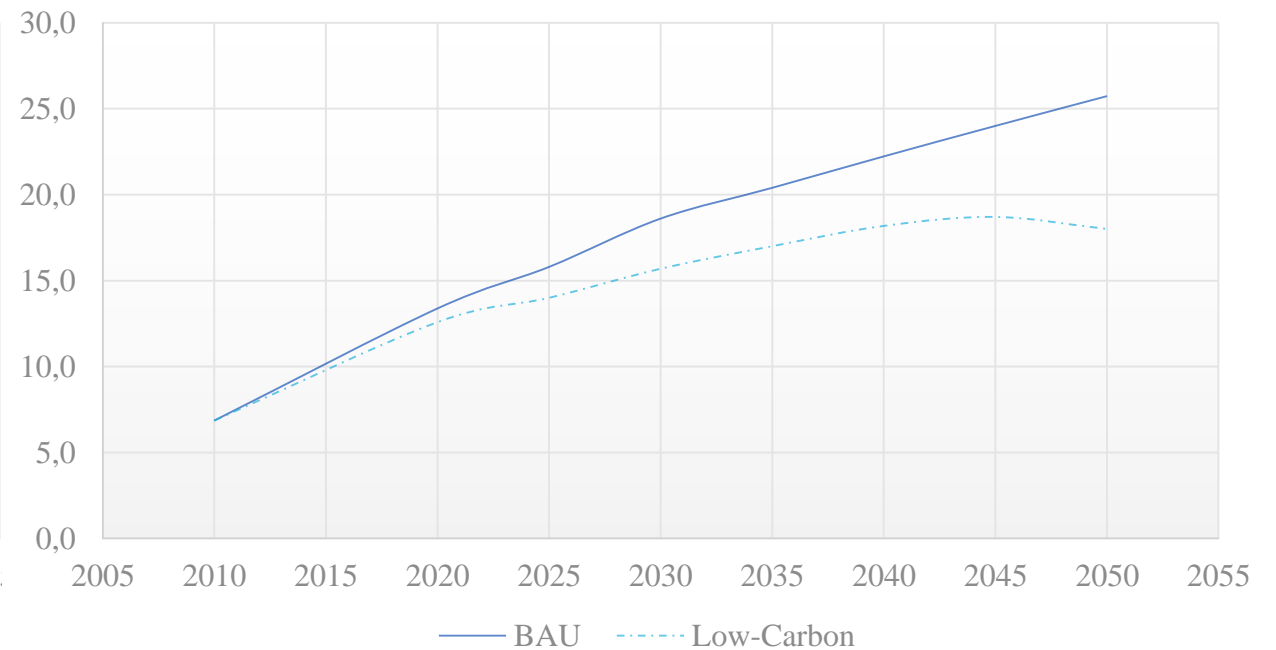
By 2030, a high-speed rail network will be formed and an integrated comprehensive transport hub will be established.

Research shows that energy consumption of oil products will reach its peak around 2040, and CO2 emission will reach its peak in 2040s

Energy Consumption Forecast



CO2 Emission Forecast



Source: Research on China's Energy Conservation and Carbon Reduction Potential, Pathway and Countermeasure till 2050

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Approach 1 - Further strengthen infrastructure construction to eight vertical and eight horizontal ones

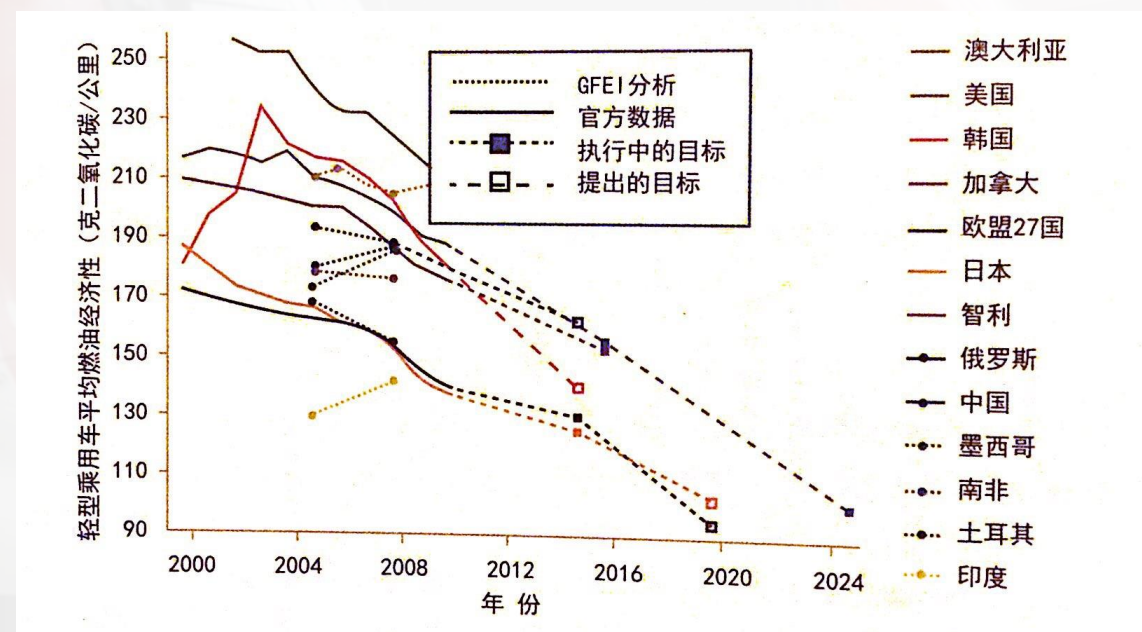
- Build commuting circles of 1–2 hours between the central cities and between central and peripheral cities, and one-hour commuting circles between central cities and key peripheral towns.



Approach 2 - Intercity Transport: Improve transport experience and make more efforts in developing high-speed railways.

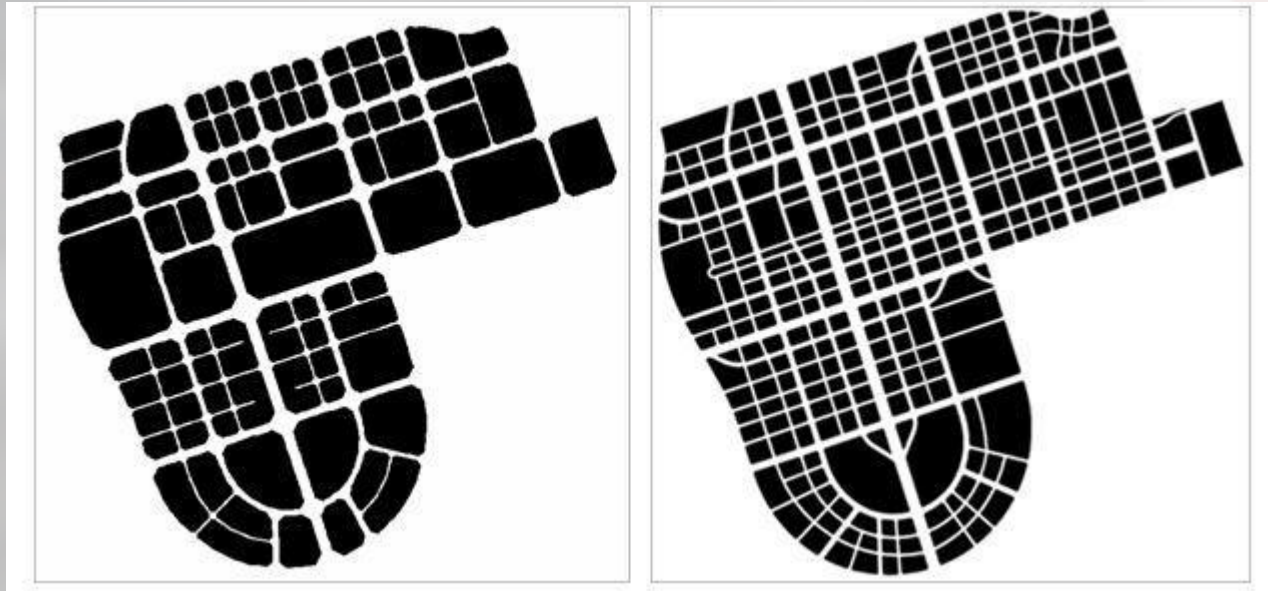


Approach 3 - Freight Transport: Strengthen multimodal transport and improve the economical efficiency of fuel consumption



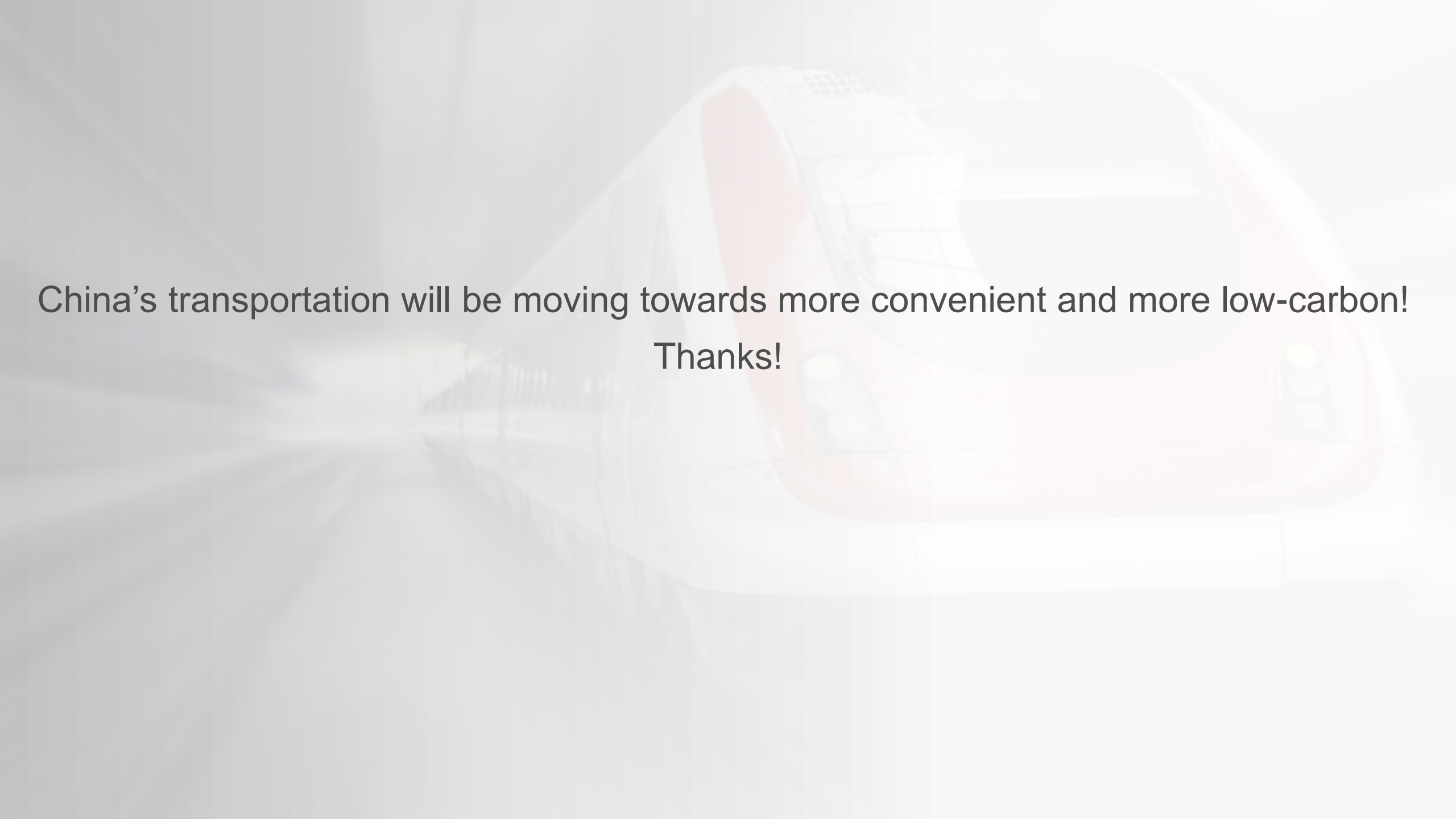
Approach 4 - Urban transport: Construct “compact cities” and promote vehicle electrification.

- small-block and narrow-road
- Electric buses save more than 70% of energy than fuel buses in Shenzhen.



Approach 5: Utilize information technology more extensively.



A high-speed train, likely a Shinkansen, is shown in motion, blurred background. The train is white with a red stripe and is moving towards the right. The text is overlaid on the image.

China's transportation will be moving towards more convenient and more low-carbon!

Thanks!

ABOUT



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