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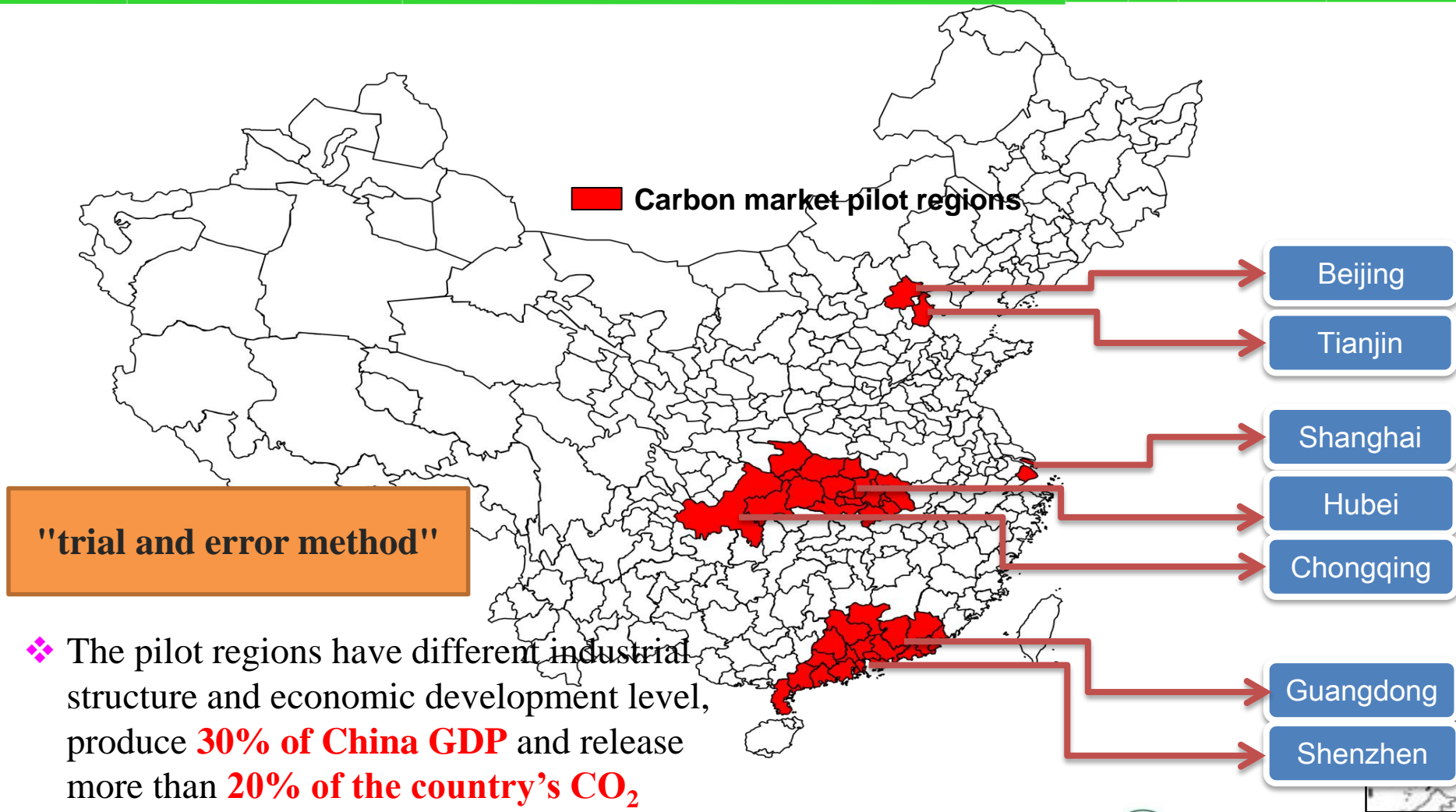
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# Current status of the China national ETS development

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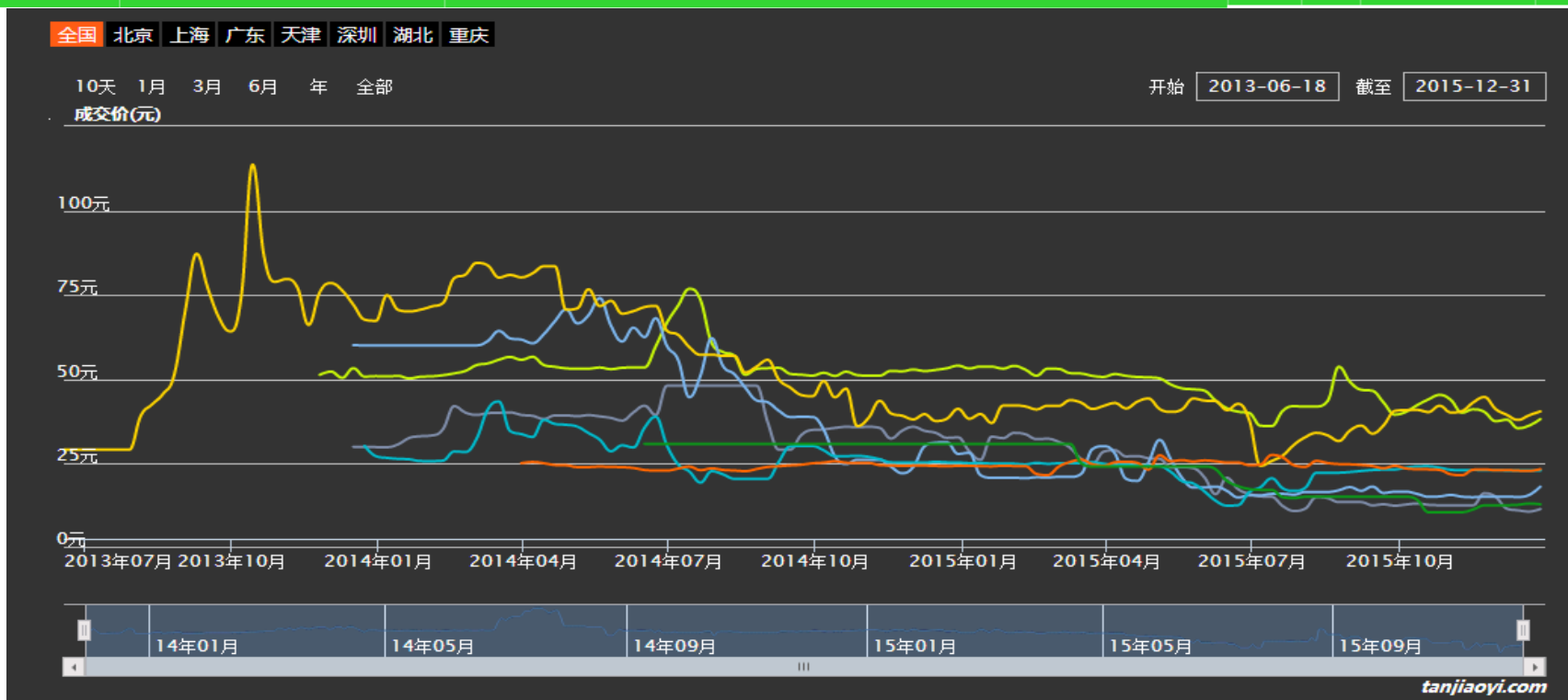
# Carbon Emissions Trading Pilot based on the Bottom-up through the "trial and error method"



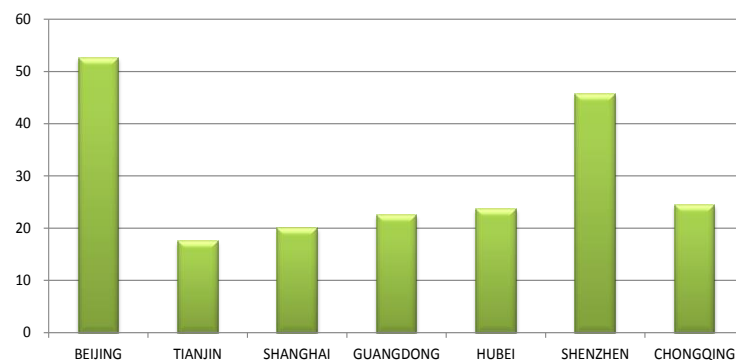
- ❖ The pilot regions have different industrial structure and economic development level, produce **30% of China GDP** and release more than **20% of the country's CO<sub>2</sub> emissions**.



# Regional Differences of Carbon Price in the Pilot Carbon Market



- By the end of 2015:
  - Issued allowance: 2 billion t
  - Trading volume: 52 million t
  - Trading turnover: 1.5 billion Yuan(RMB)

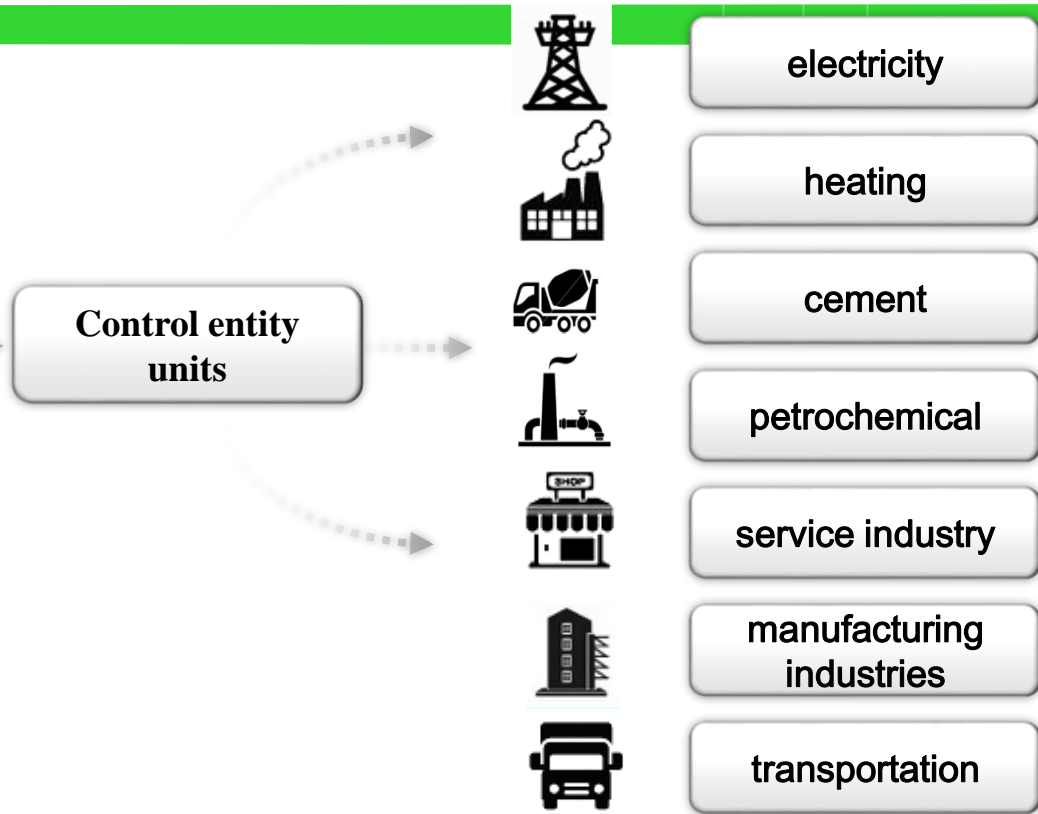
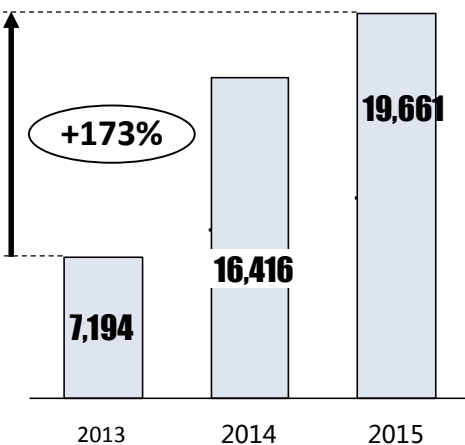
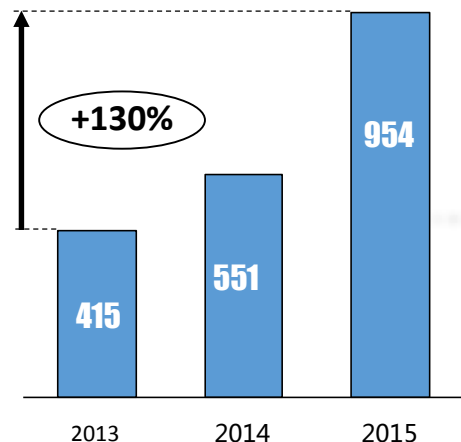


# Experiences and Lessons from Pilot Carbon Market

- Legislation is the fundamental guarantee:
  - **Double - tier legislation**: Beijing, Shenzhen
    - Decision of the Standing Committee of the local people's Congress (the strongest punishment to Non-compliance)
    - & Decree of the local people's Government
  - Single - tier legislation
- Data Quality is the key element:
  - Third party verification
  - **Fourth Party Verification & Experts Review**
- Allowance allocation is the visible hand of the government (harmony effect) :
  - industry structure adjusting polices
  - energy structure optimizing polices
  - Pollutant treatment polices



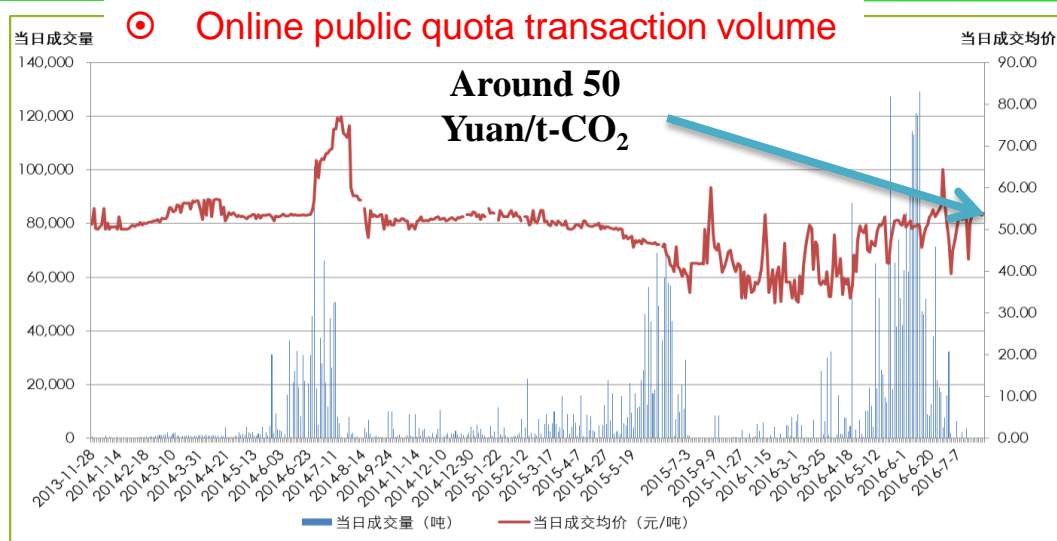
# Beijing Pilot Carbon Market



BEA Transaction turnover(10,000 yuan)

The control entity unit increased by 130%, the turnover of transaction increased by 173%, and the price remained stable

# Environmental Effects by BETS

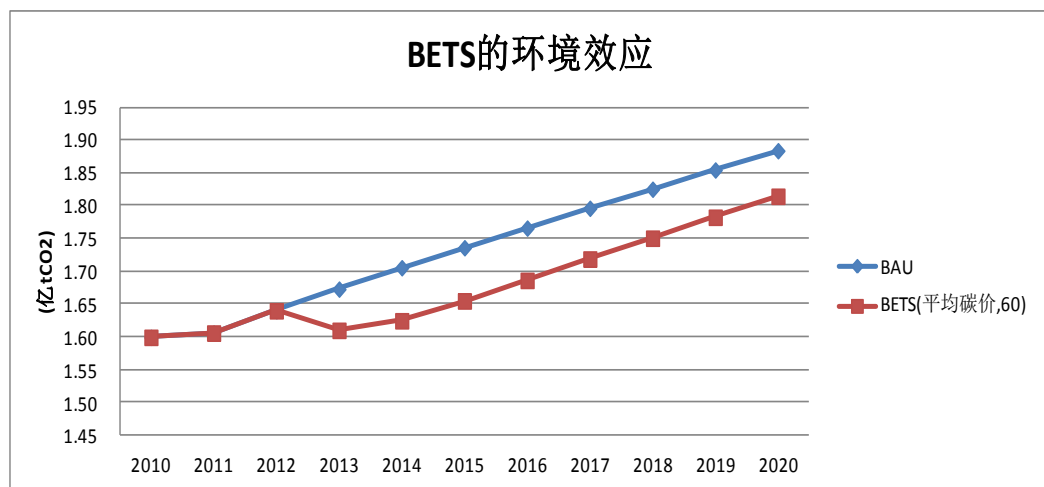


## ■ CGE Model:

- Compared with the BAU scenario, CO<sub>2</sub> emissions from 2013~2015 were reduced by 3.8%~4.8%.
- in 2020, CO<sub>2</sub> emissions will be reduced by 3.7%.

## ■ Empirical data :

- The total CO<sub>2</sub> emissions of the first batch emitters (415) in 2013 reduced by 4.5% than that in the Historical reference year



# Key Thoughts in the National ETS Design

- CHINA NDC:
  - The CO<sub>2</sub> intensity of GDP decreases by **60-65%** in 2030 compared with 2005.
  - to achieve the **peaking of CO<sub>2</sub> emissions** around 2030 and to make best efforts to peak early.
- “13<sup>th</sup> Five-Year” work plan for controlling greenhouse gas emissions “ ( the State Council , **2016.10** )
  - By 2020, carbon dioxide emissions per GDP fell by **18%** compared to 2015, the total amount of carbon emissions have been effectively controlled.
- Contribution to realize carbon reduction goal from the National ETS in the 13<sup>th</sup> FYP: **above 50%**
- Carbon dioxide emissions per GDP in ETS: **above 19%**
- NETS will cover **50% CO<sub>2</sub> emissions** :
  - Scope: Direct emission+ Indirect emission
  - Coverage: 8 sectors(20 sub-sectors)
  - Threshold:10,000 tce/20,000 t CO<sub>2</sub>



# Overall Structure of the National Carbon Market

**National carbon emissions trading management regulations (Draft)** (the State Council , legislative process )

**Interim Measures on the Management of Carbon Emissions Trading** ( NDRC,2014 )

## **Measures on the Management:**

- ✓ Accounting & Reporting
- ✓ Verification
- ✓ Trading
- ✓ Supervision

## **Standards and Guidelines:**

- Accounting
- Allowance allocation

Reporting Platform

Registry System

Trading Center

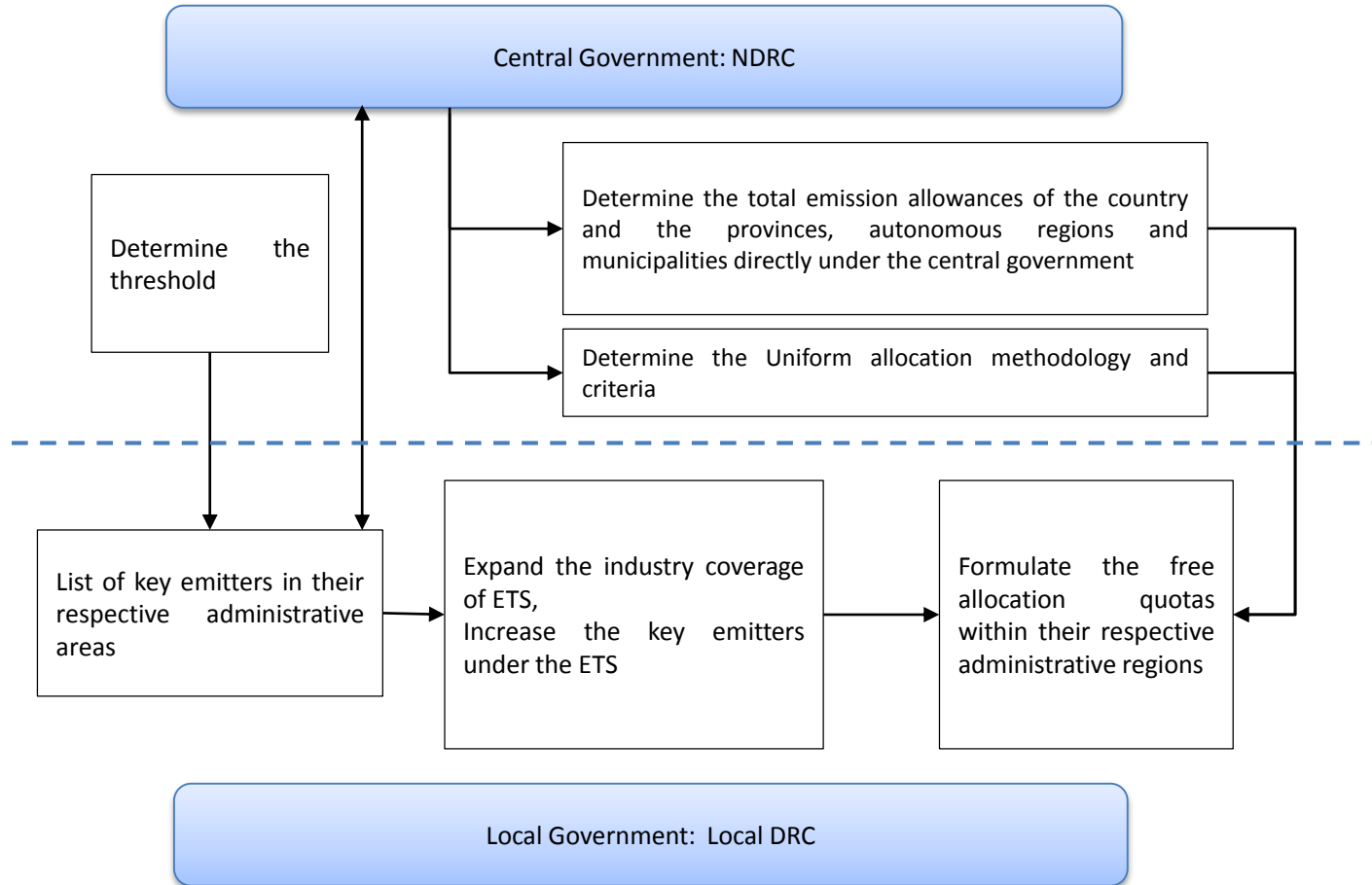
Local reporting platform

7 registry system in Pilot ETS

Local Trading center



# Two-tier Management System of the Emissions Allowance



# Guidelines of Allowance Allocation

Sector	Sub-sector	Methodology
Production and Supply of Electricity, Heat	Power generation	Bench marking
	heat and power cogeneration	Bench marking
	Power grid	Historical carbon intensity reduction
Processing of Petroleum, Coking, Processing of Nucleus Fuel	processing of crude oil	Bench marking
Manufacture of Chemical Raw Material and Chemical Products	ethene	Bench marking
	Synthetic ammonia	Historical carbon intensity reduction
	Calcium carbide	Historical carbon intensity reduction
	Methanol and others	Historical carbon intensity reduction
Manufacture of Non-metallic	Cement clinker	Bench marking
	flat glass	Bench marking
Manufacture and processing of Non-Ferrous Metals	Electrolytic aluminum	Bench marking
	copper smelting	Historical carbon intensity reduction
Manufacture and Processing of Ferrous Metals	rolling process of Crude steel	Historical carbon intensity reduction
Manufacture of Paper and Paper Products	Pulp manufacturing	Historical carbon intensity reduction
	Paper and paperboard	Historical carbon intensity reduction
Air Transportation	Air Passenger Transportation	Bench marking
	Air Cargo Transportation	Bench marking
	Airport	Historical carbon intensity reduction

# China Carbon Market Construction still on the way, and Problems to be Solved

- Enhance the progress of Verification of CO<sub>2</sub> Report
  - Awareness of the emitters to participate the carbon pricing
  - Cognition of guidelines of MRV by emitters and Verification body
  - Data Quality Management by local DRC
- Balance the relations among the different Stakeholders
  - the scientificity of the Allowance Allocation Methodology & the availability and verifiability of the data
  - Fairness among the different industries
  - the tightness of the quota program & the willingness of the emitters
- Linkage issue
  - National carbon market & pilot carbon market



Thanks for your attention!

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