Global overview for Urban Rail Transit and the urgency for PPP Standard Development

Prof. Li Kaimeng, Ph.D., Director General of CIECC Research Center
likm@ciecc.com.cn
Development of Urban Rail Transit

**History and Status Quo**
- A history of over 150 years (since 1863 in London)
- Built in large-scale since 1970s
- 10,000 km at present in operation in more than 180 cities of over 50 countries

**7 Systems**
- Metro
- Light rail
- Monorail
- Urban fast track
- Tram
- Maglev Train
- APM
Development of Urban Rail Transit

- The prior way of public transportation in large and medium-sized cities
- A high percentage of the gross city passenger volume in metropolises:
  - Tokyo: 88%
  - London: 71%
  - Paris: 70%
  - Moscow: 55%
  - Beijing: 86.6%
  - Shanghai: 89.1%
Development of Urban Rail Transit

- The innovation and application of new technologies on urban rail transit
  - RAMS (Reliability, Availability, Maintainability and Safety)
  - Big data
  - BIM (Building Information Modeling)

- 7 national engineering innovation labs in China
  - rail transit system test
  - automobile system integration
  - communication and operation control of trains
  - technologies on transit system security assurance
  - transit system security and maintenance assurance
  - technologies on green and safe construction
  - technologies on digital construction and assessment.
PPP: a very important model for urban rail transit projects

- Huge investments and influences  + high quality of construction and operation
  - the investment and operation by public sectors
  - involvement of private sectors

- Very complex factors should be taken into consideration
  - the exploitation of urban land
  - urban transportation network planning
  - business mode structure design
  - the requirement of energy conservation
  - environment protection
Why to establish a UNECE PPP standard on urban rail transit sector?

- To exert very different influences on urban regions and industry.
- To promote the private sectors to involve more effectively in urban rail transit sector.
- To develop People-first Public-Private Partnerships and to implement UN SDGs.
- To provide policy framework and PPP model principles applied in urban rail transit sector in line with the requirement of the international organizations and governments.
  - national urban public transport authorities
  - PPP policymakers of different countries
  - the World Bank
  - the Asia Development Bank
- To standardize the operation of urban rail transit PPP projects.
- To stimulate the innovation of urban rail transit project implementation.
The Standard will make effective contribution to the SDGs

- China is becoming the largest PPP market for urban rail transit.
- Sufficient case resources of the PPP international standard from China.
  - Beijing Metro Line 4
  - Hohhot Metro Line 1
  - Fuzhou Metro Line 2
  - Hangzhou Metro Line 1
  - Shenzhen Metro Line 4
  - ......

- The summary of the best PPP practices of rail transit in the world.
Urban Rail Transit: a green and environmental-friendly transport mode

energy-efficiency
land-conservation
huge traffic capacity
less pollution
safety and comfort
convenience

People First, a tool to achieve the SDGs
Welcome the Global Top Experts Join us in Urban Rail Transit PPP Standard Development Project Team

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