Virtual Trade Mission to China

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Virtual Trade Mission to China

Moderator: **Mr. Jeffrey Wharton,** President, IMPulse NC LLC;
Chair, APTA Business Member International Business Development Subcommittee

Welcome: **Ms. Julie Abraham,** Executive Director, Office of International Transportation and Trade, Office of the Secretary, Department of Transportation

Speakers: **Dr. Wu Hongyang** and **Dr. Jia Wenzheng**, Associate Professors, China Urban Sustainable Transport Research Center, China Academy of Transportation Sciences, Ministry of Transportation

Ms. Sun Aixin on behalf of **Mr. Yang Qingshan**
Senior Engineer and Secretary General Assistant
China Public Transportation Association

Mr. Yang "Richard" Xie, Sales Manager, GE Transportation; Co-Chair, ARWG

Ms. Aiqun Peng, Senior Commercial Specialist, U.S. Commercial Service, Department of Commerce

Mr. Geoffrey Jackson, Regional Director for Policy and Program, U.S. Trade and Development Agency

交通运输部科学研究院
China Academy of Transportation Sciences

中国城市交通发展模式向可持续转变

Shifting to Sustainable Urban Transport in Chinese cities




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报告内容 Contents

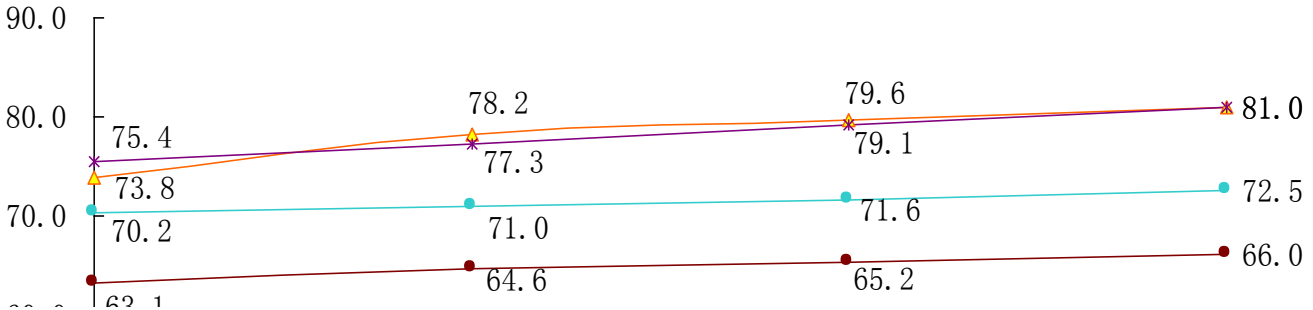
1、为什么要转变城市交通发展模式？

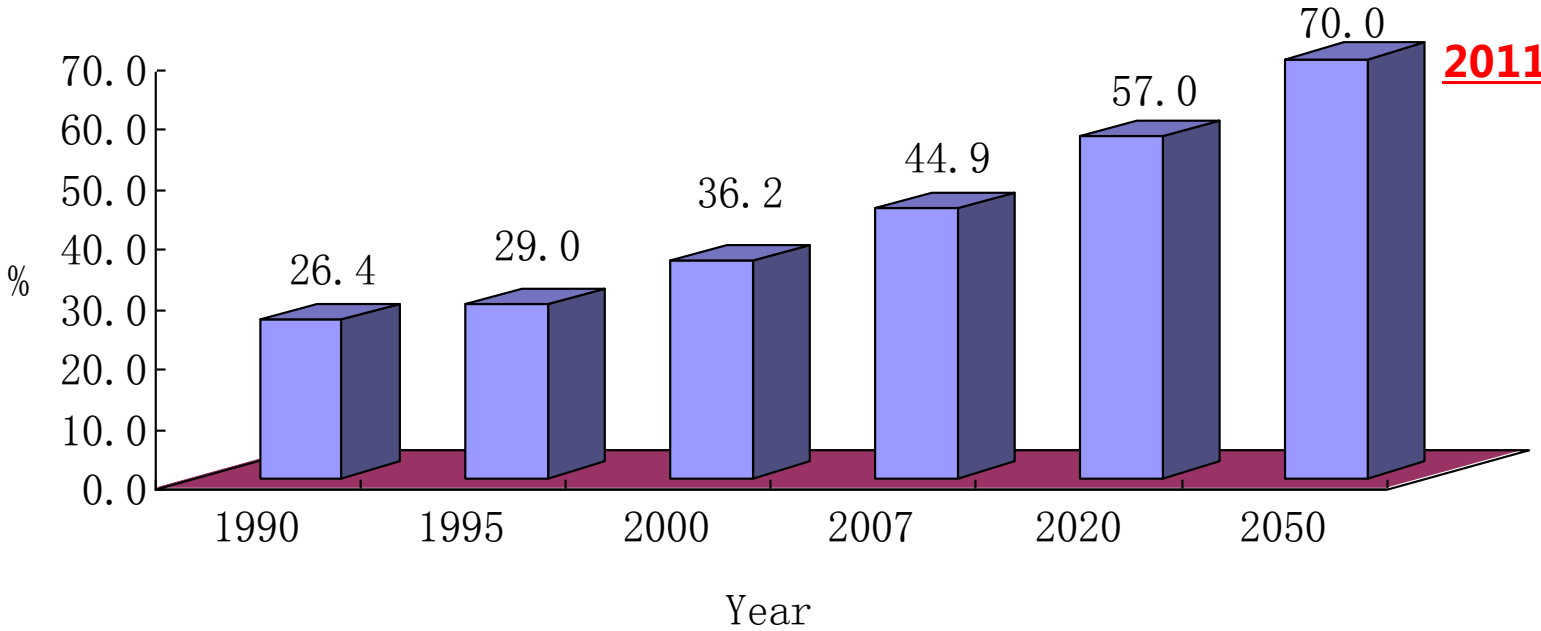
1、Shifting to SUT in Chinese cities – WHY?

2、如何转变城市交通发展模式？

2、Shifting to SUT in Chinese cities – HOW?

1.1 城镇化 Urbanization

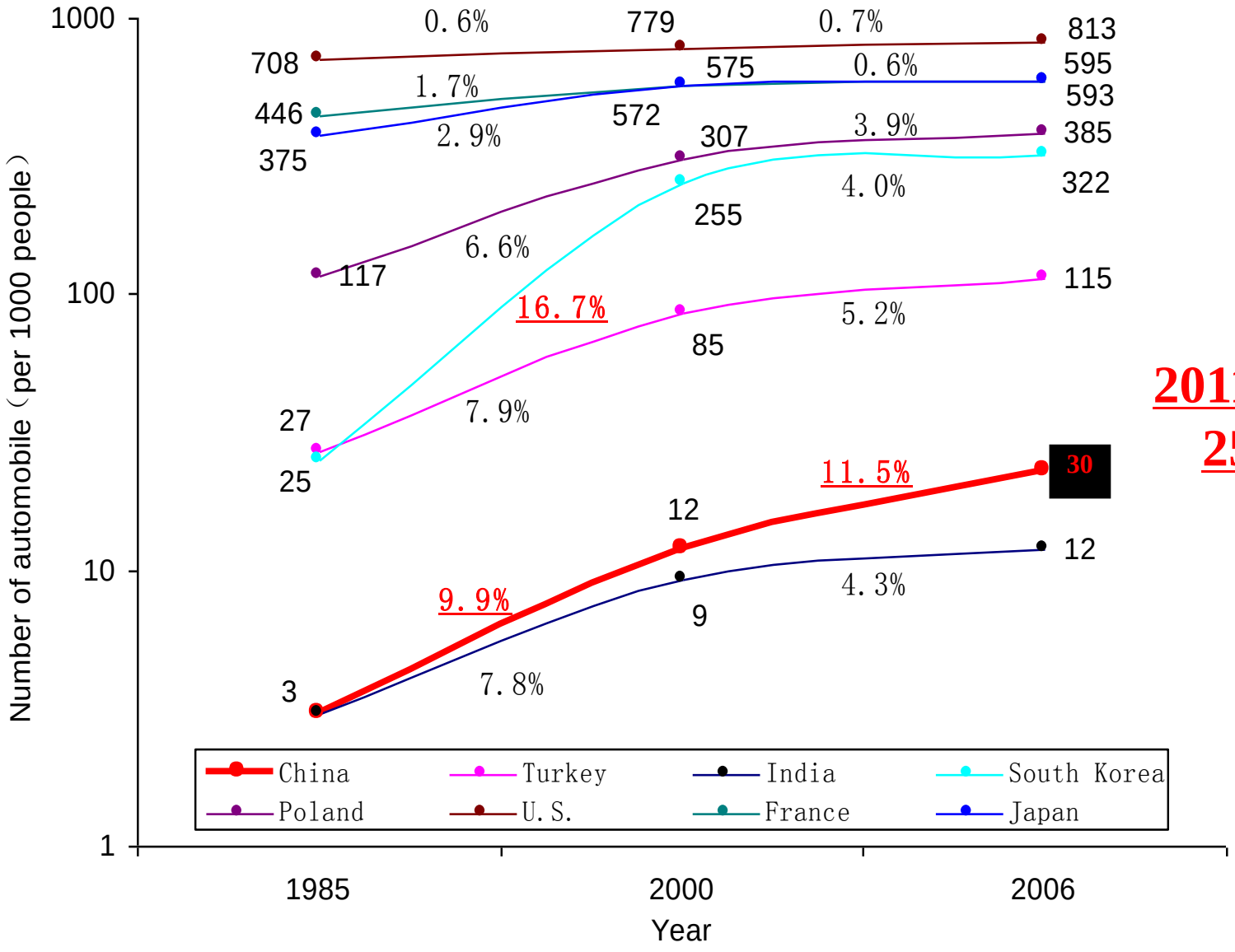




2011: 51.3

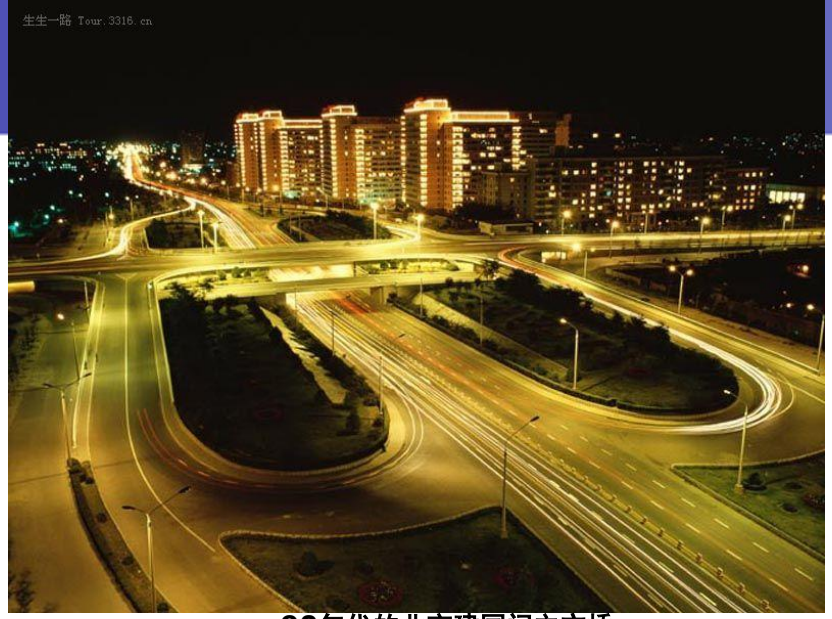
Country	Britain	France	Germany	USA	U.S.S.R.	Japan	China
Year	1720-1840	1800-1900	1785-1865	1860-1900	1920-1950	1925-1955	1981-2003
Period	120 Years	100 Years	80 Years	40 Years	30 Years	30 Years	22 Years

1.2 机动化 Motorization



2011:>70

25%



90年代的北京建国门立交桥

Beijing 1990s

2010年的北京建国门立交桥

Beijing 2010s

90年代的上海延安路高架

Shanghai 1990s

2010年的上海延安路高架

Shanghai 2010s

中国大多数大城市普遍出现严重的交通拥堵！
Transport Congestion in Chinese Cities


北京市
Beijing


上海市
Shanghai


广州市
Guangzhou

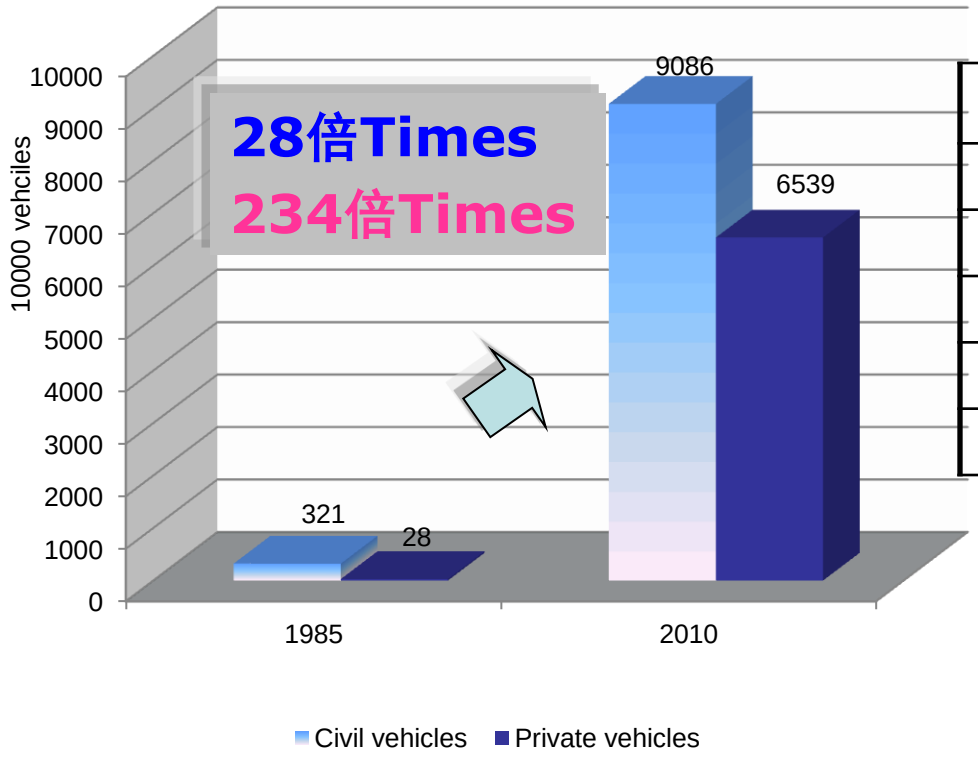

南京市
Nanjing


成都市
Chengdu


杭州市
Hangzhou

中国机动化发展呈现增长的三大特点：
Motorization in China-3 Characters

- **之一：高增长速度**
- **1. High Speed Growth**

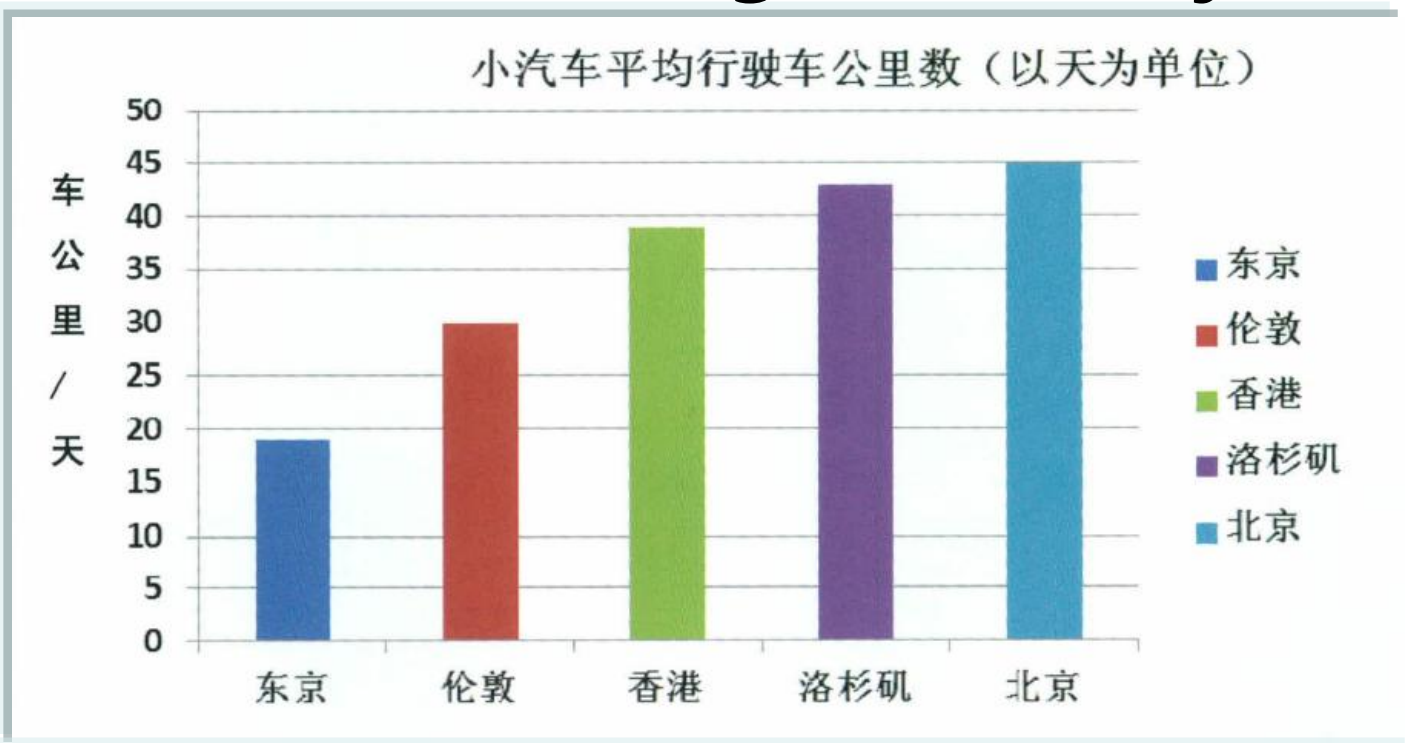


Vehicles Ownership in Beijing

	From	To	Years
1949-1997	2300	1 Mil.	48
1998-2003	1 Mil.	2 Mil.	6
2004-2007	2 Mil.	3 Mil.	4
2008-2009	3 Mil.	4 Mil.	2
2010-2011	4 Mil.	5 Mil.	1.5

中国机动化发展呈现增长的三大特点：

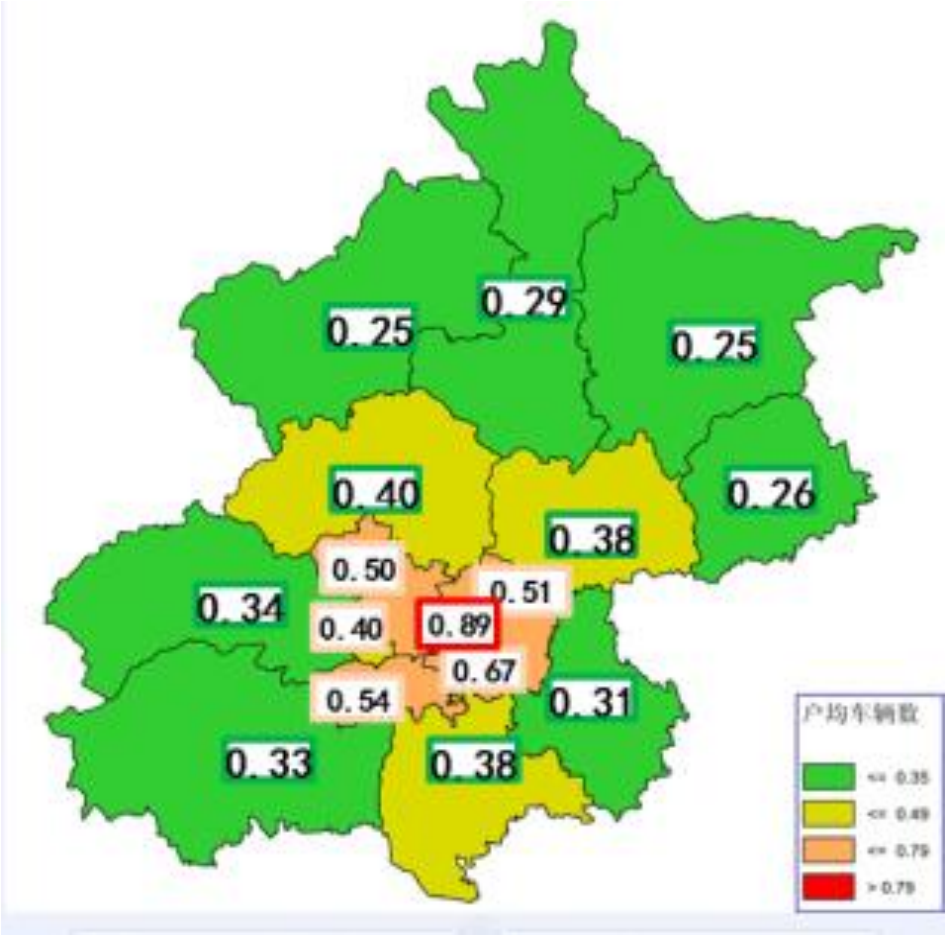
- 之二：高使用强度 2.High Intensity Use



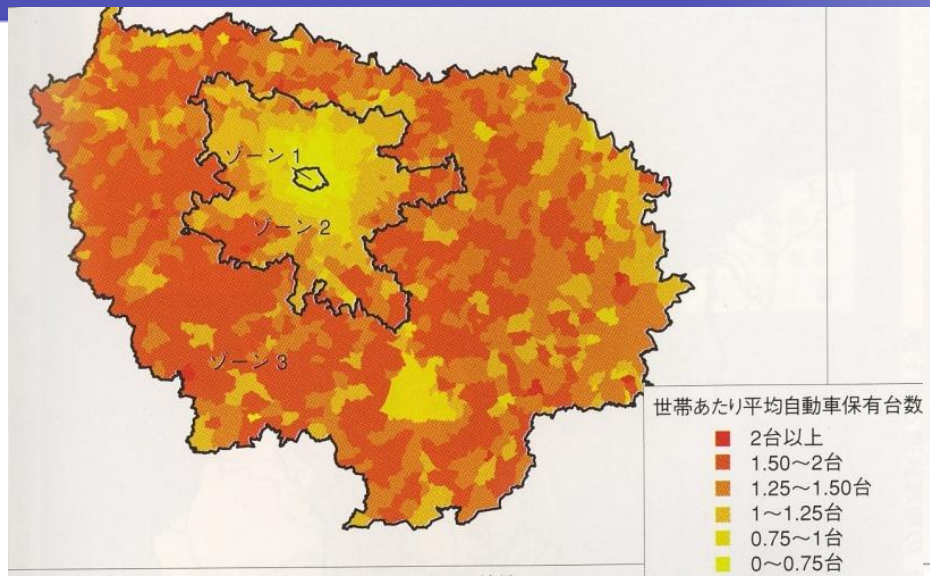
	东京	伦敦	香港	洛杉矶	北京
车均周转量（车公里/日）	19	30	39	43	45

中国机动化发展呈现增长的三大特点：

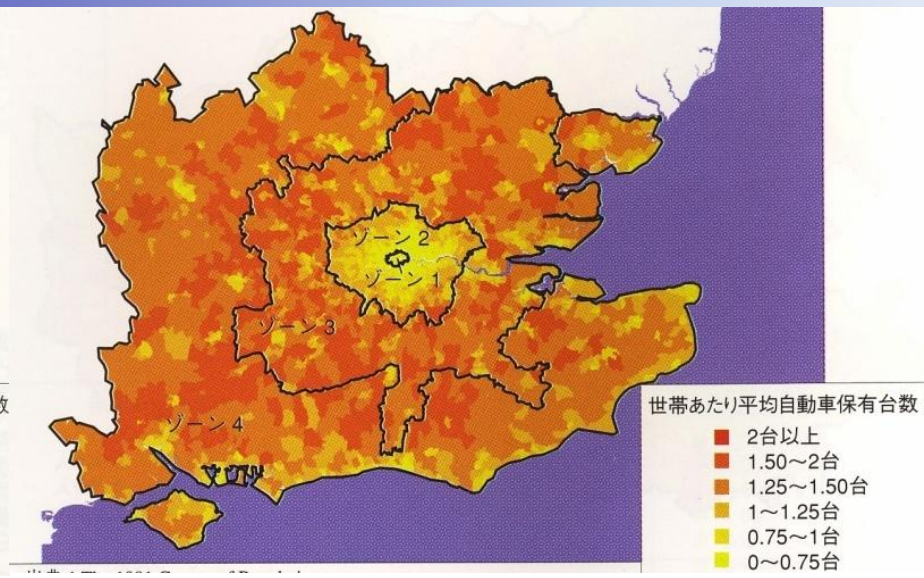
- **之三：高密度聚集** 3. High Concentration



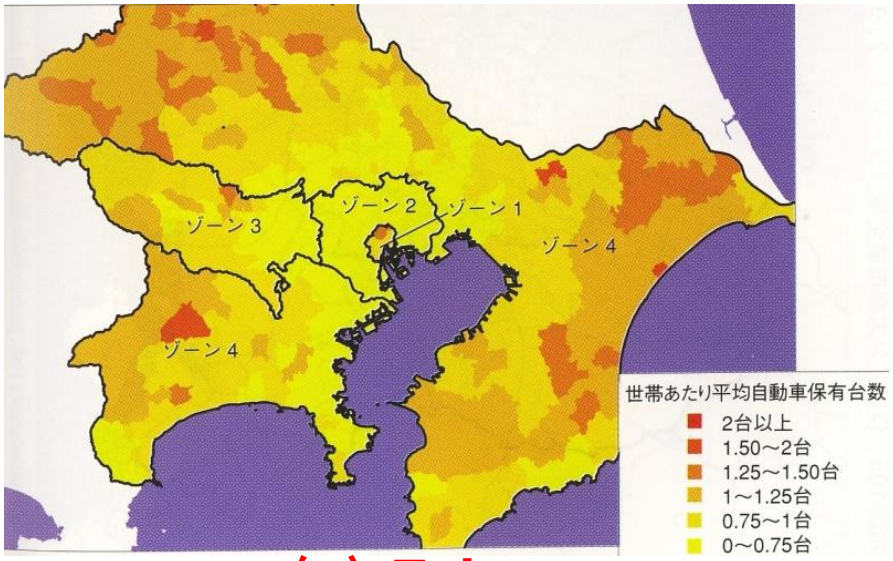
2010年，北京市480万辆机动车的百分之七十以上集中在六环范围内；畸形的小汽车保有方式，导致交通供需矛盾激化，给城市道路系统带来巨大压力



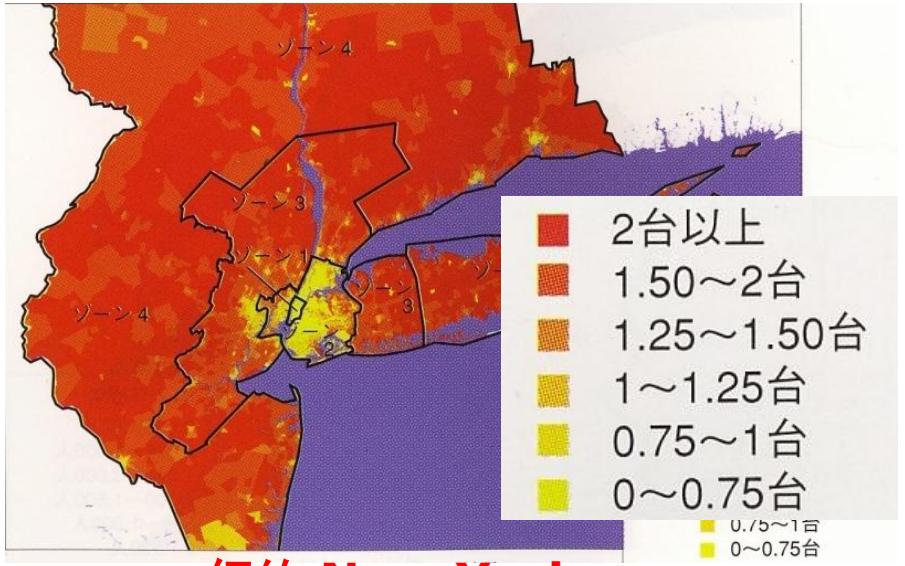
巴黎 Paris



伦敦 London

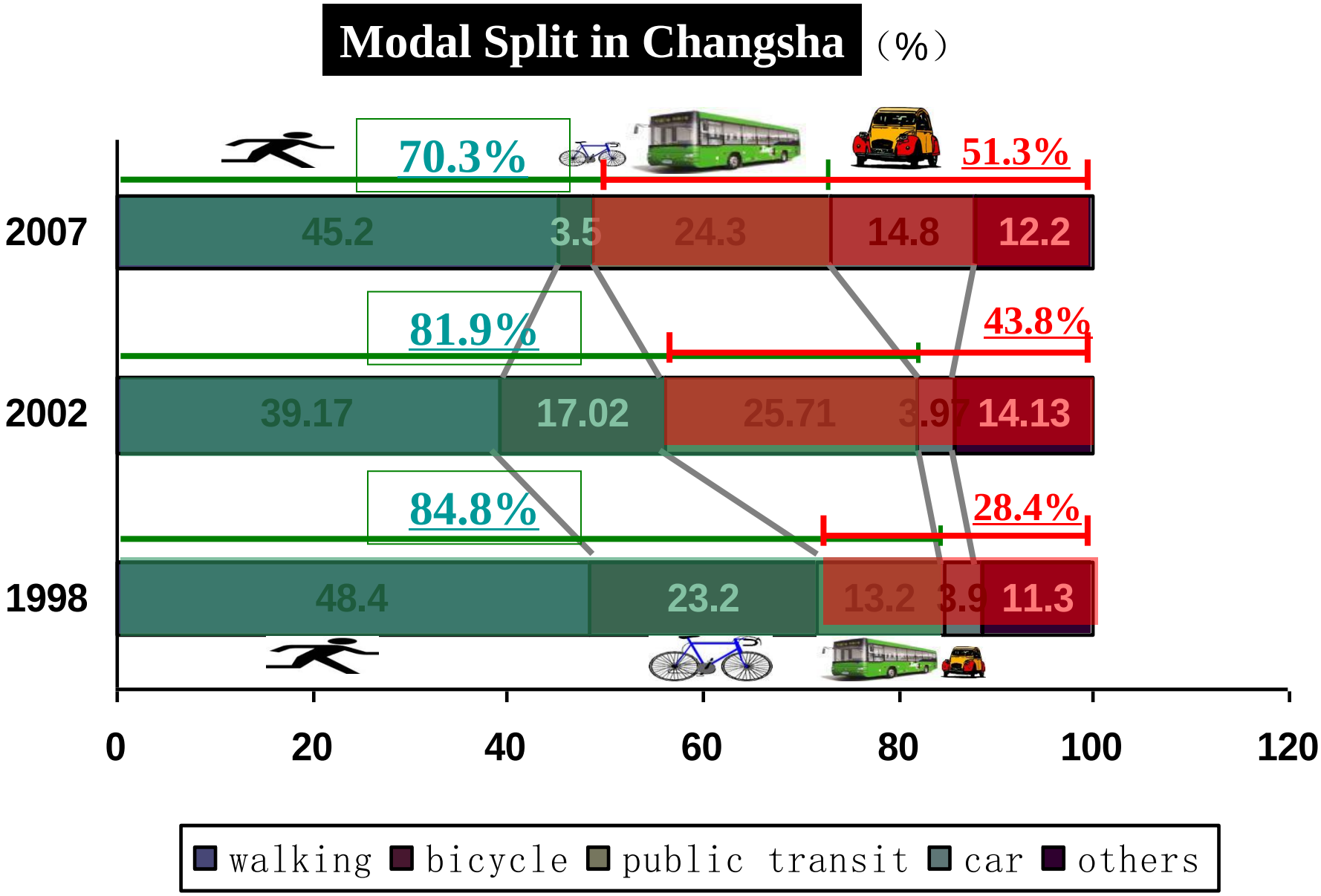


东京 Tokyo

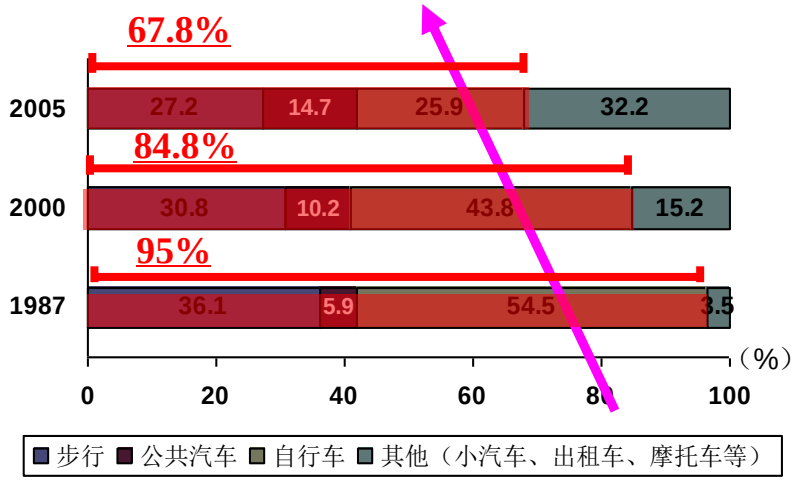


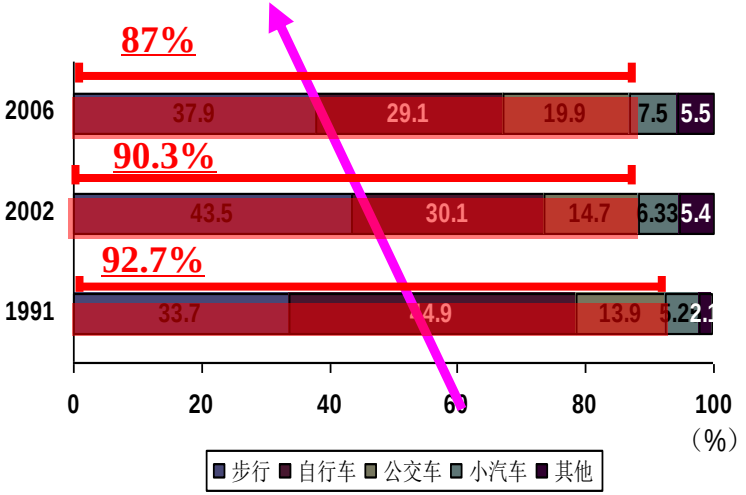
纽约 New York

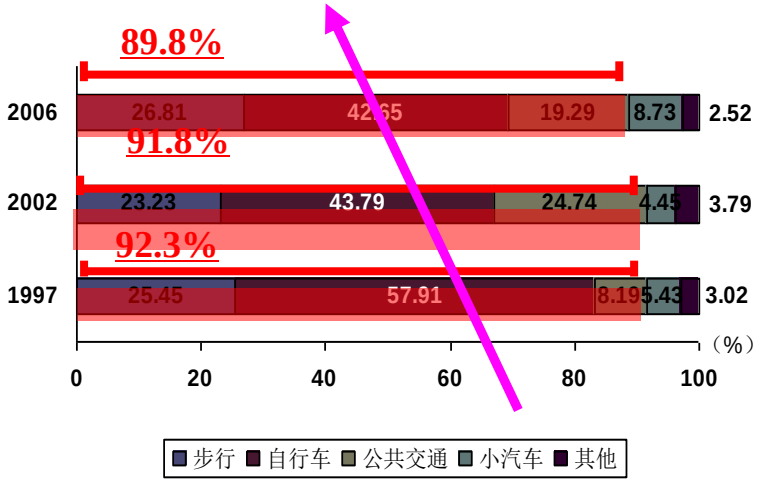
1.3 出行结构 Modal Split



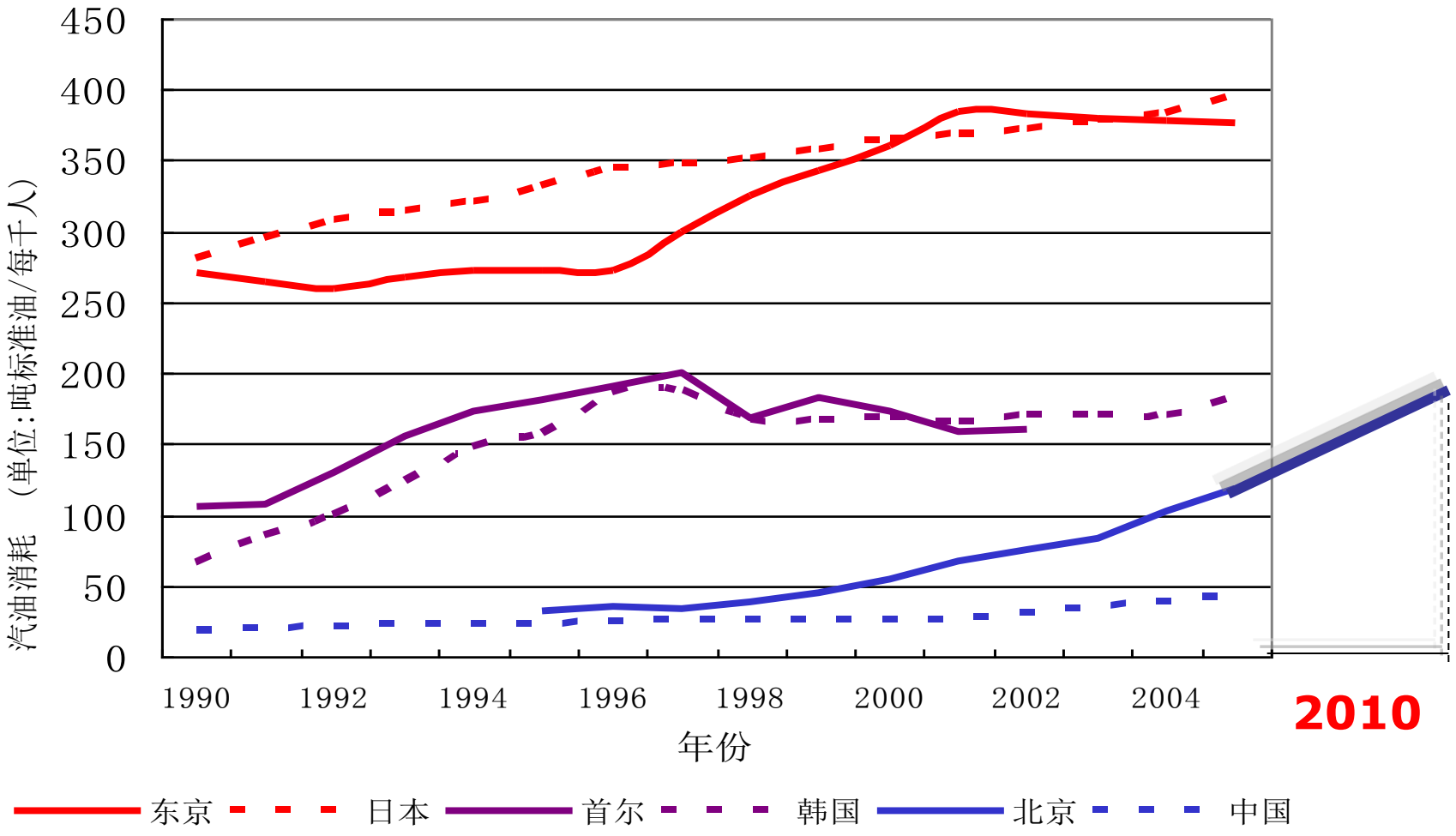
- ✓ 以“步行+自行车+公交” 的低碳出行方式日益萎缩
- ✓ Walk +Bicycle+Transit: Reducing



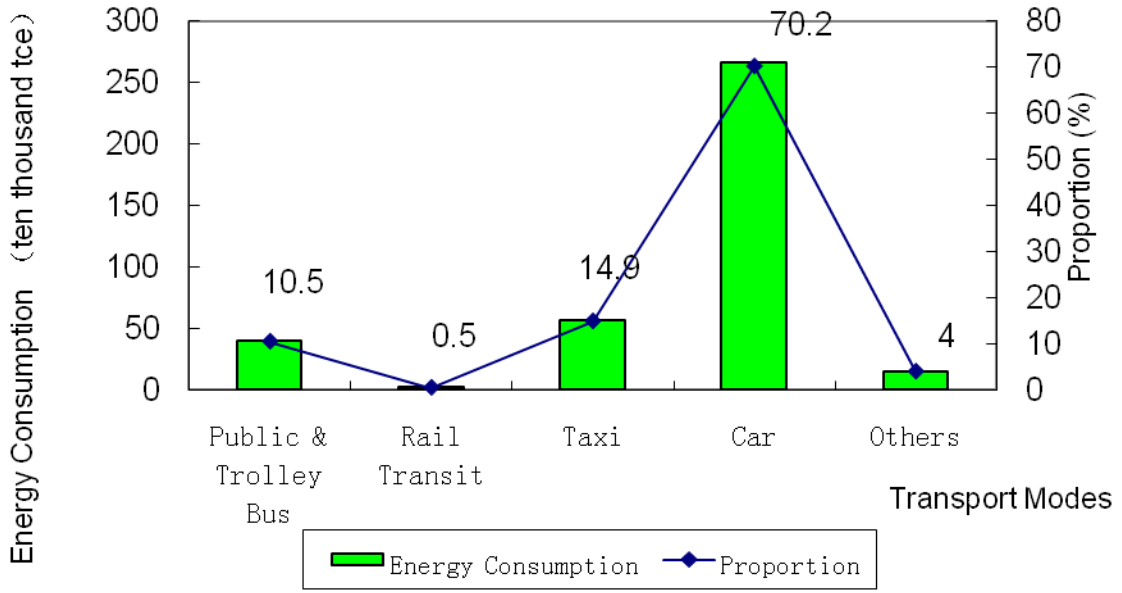




1.4 能源消耗 Energy Consumption



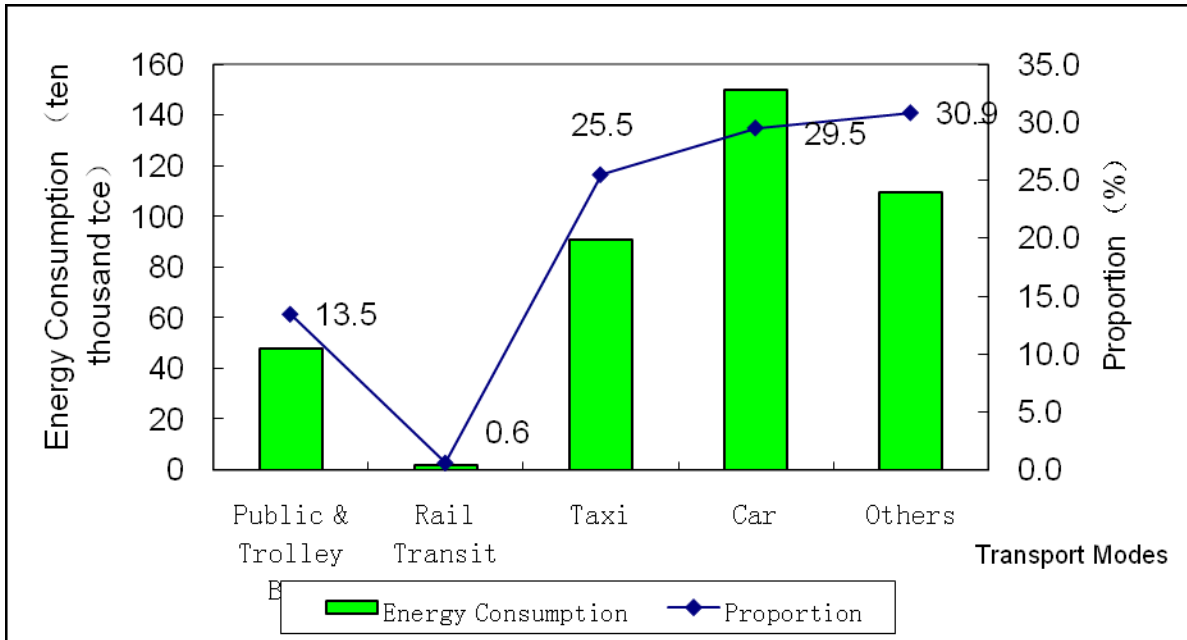
中国、日本、韩国汽车能耗对比
Comparison of China, Japan and South Korea

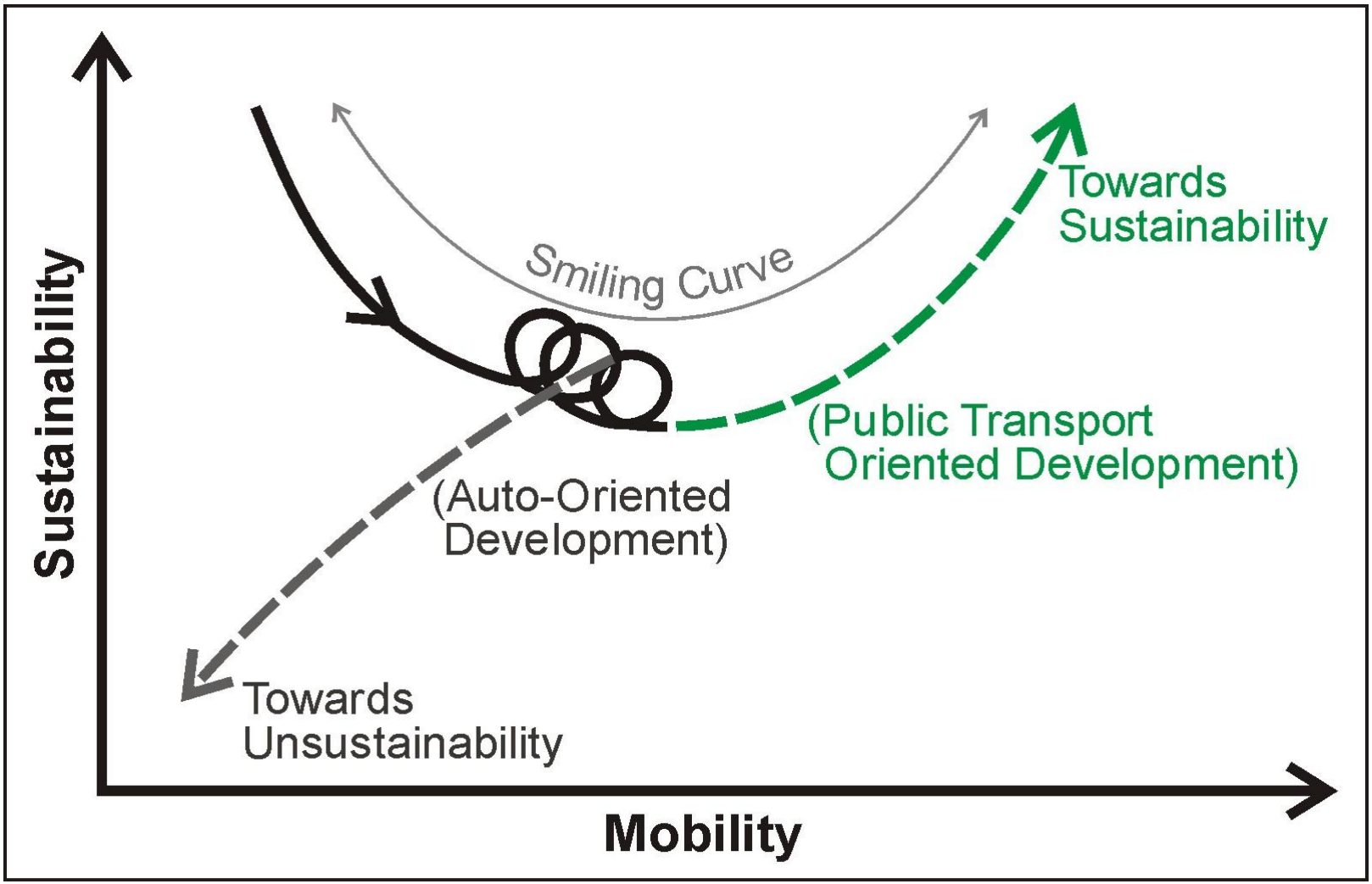


公共+轨道	出租汽车	小汽车	其他
42.8	10.9	42.8	3.6

北京
Beijing

上海
Shanghai




Sustainability
Mobility
Smiling Curve
Towards
Sustainability
(Public Transport
Oriented Development)
(Auto-Oriented
Development)
Towards
Unsustainability

中国公交的今天

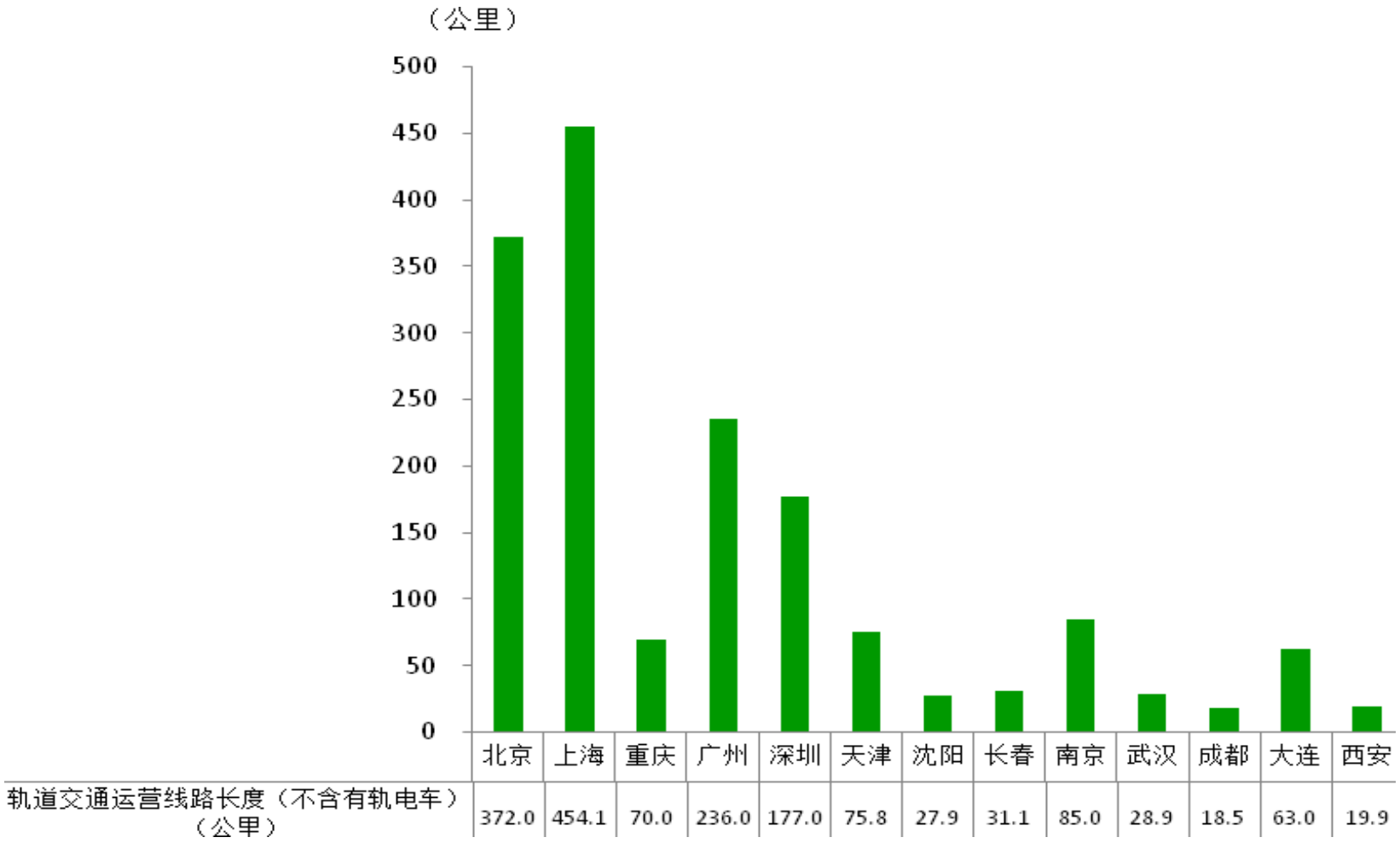
Today's Public Transport in China

- ✓ 每1天承担了2.1亿人次出行——相当于春运期间全国4天的道路客运量——规模世界第一
- ✓210 million person times per day
- ✓ 仅北京、上海两大城市，每天就有超过1200万人次采用轨道交通出行——相当于春运期间铁路3天的客运量
- ✓12 million person times per day in Beijing and Shanghai's Subway system
- ✓ 公交已经成为大多数居民日常生活的最基本需求出行分担率达20-40%，对中低收入群体达60%
- ✓ Main travel mode selection of daily life

城市公交供给能力稳步提高
Increasing Public Transport Supply

运能指标 Indicators	数值（2010年底） Value	比2005年增长 Increasing rate to 2005
公共交通运输总量 Transport Volume of PT （十亿人次） (Billion Person Times)	101.6	2.1倍 2.1 times
公共汽电车运营车辆总数 Vehicles （千标台） (Thousand Units)	476.0	52%
BRT线网长度 BRT Routes （公里km）	514	31.3倍 31.3 times
轨道交通运营线网长度 Rail Transit Routes （公里km）	1471	3.3倍 3.3times

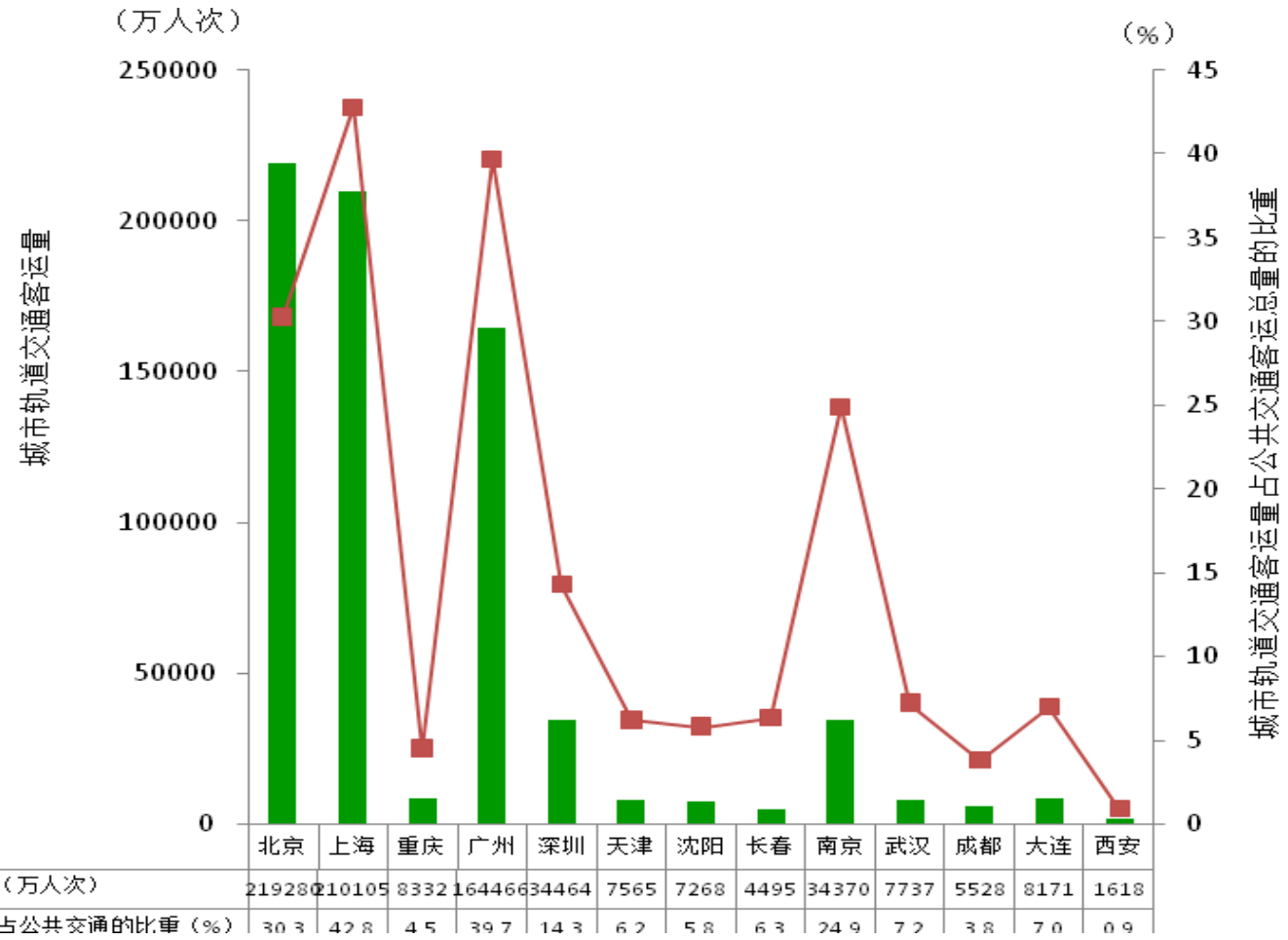
城市公交供给能力稳步提高



	北京	上海	重庆	广州	深圳	天津	沈阳	长春	南京	武汉	成都	大连	西安
轨道交通运营线路长度（不含有轨电车）（公里）	372.0	454.1	70.0	236.0	177.0	75.8	27.9	31.1	85.0	28.9	18.5	63.0	19.9

2011年全国城市轨道交通运营线路长度情况

城市公交供给能力稳步提高



	北京	上海	重庆	广州	深圳	天津	沈阳	长春	南京	武汉	成都	大连	西安
城市轨道交通客运量（万人次）	219280	210105	8332	164466	34464	7565	7268	4495	34370	7737	5528	8171	1618
城市轨道交通客运量占公共交通的比重（%）	30.3	42.8	4.5	39.7	14.3	6.2	5.8	6.3	24.9	7.2	3.8	7.0	0.9

2011年全国城市轨道交通客运量及其占公共交通客运总量百分比情况

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1、为什么要转变城市交通发展模式？

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2、Shifting to SUT in Chinese cities – HOW?

城市交通发展正在实现五个转变

Five changes of transport development in Chinese Central cities

	方面 Field	从 From		向 To
1	发展思路：Development idea:	速度外延型 Speed	➔	质量内涵型 Quality
2	空间扩展：Space expansion:	平面扩展 Two dimensions		三维并进 Three dimensions
3	动力机制：Promoting mechanism :	单纯工业 Single Industry		综合经济 Integrated economy
4	城市管理：Urban management :	政府计划为主 Planned		市场调控 Market -oriented
5	城乡关系：Urban and Suburb:	城市为主 Urban		城乡协调发展 Integrated urban & suburb

典型城市交通发展的战略措施

City	Strategic measures												
	Promoting Public Transport	Integrated Planning	TDM	Economic Investment	ITS	Environment Protection	Government Management	Restricting on cars	Park&Ride	Infrastructure	Carpooling	Cycling	Stake Holders involvment
New York	★	★		★				★					
Houston	★		★						★		★		
London	★		★	★			★						
Paris	★	★		★			★		★				
Berlin			★	★	★	★						★	
Tokyo	★	★			★			★					
HongKong	★	★	★		★	★							
Curitiba	★	★			★	★							★
Seoul	★		★			★				★			
Bangkok	★			★	★		★						
Singapore	★	★	★							★			

城市 City	市区人口（百万人） Population	总公交分担率% Share of PT	轨道占公交的比重（%） Share of Rail Transit in PT
东京 Tokyo	12.79	64	83
纽约 New York City	8.27	75	67
伦敦 London	7.56	75	90
香港 Hong Kong	7.11	83	30
新加坡 Singapore	5.02	63	32
库里蒂巴 Curitiba	1.85	75	-
斯德哥尔摩 Stockholm	0.87	43	60

发展目标Objectives

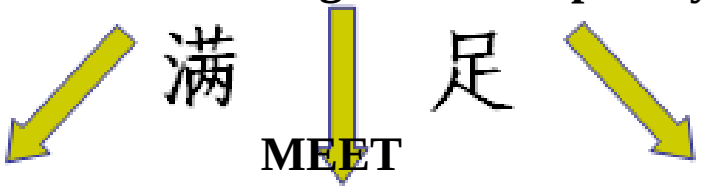
“建立一个系统 实现三个满足”

To establish one system, To realize three demands

建立与社会经济发展相适应的综合运输系统

便捷、高效、经济、安全、公平、绿色

To establish an integrated transport system



社会经济发展需求	出行多样性的需求	与自然和谐的要求
The needs of social and economic development	The diversity travel demands	The needs of harmony with natural environment

发展目标Objectives

两高五低一适应 2 Highers, 5 Lowers, and 1 Adaption

- **建设高通达、高覆盖率的城市交通运输网络**

  Easier access & broader coverage

- **建设高品质、高效率的城市交通运输服务系统**

  High quality & efficiency

- **发展“五低”的交通运输方式及装备**

  Transport modes that have the 5 Lowers

- **构建与城市可持续交通发展相适应的综合管理体制**

  Comprehensive management system that works with urban sustainable transport

发展目标Objectives

两高五低一适应 2 Highs, 5 Lows, and 1 Adaption

- 低能耗 Low Energy Consumption
- 低环境污染 Low Pollution
- 低资源占用 Low Resource Consumption
- 低事故率 Low Accident Rate
- 低财政负担 Low Financial Requirement



具体目标 Specific Objectives

- **市区人口1000万以上城市—— 建设轨道交通网络化运营系统；**

  (Pop: 10 mil+) Complete metro network

- **市区人口300万至1000万的城市——建设轨道交通网络主骨架；**
(Pop: 3-10 mil) Basic metro network

- **市区人口100万至300万的城市——建设快速公共汽车、现代有轨电车等地面公共交通系统；**(Pop: 1-3 mil) BRT+ trolley bus

- **市区人口小于100万的城市——形成以公共汽电车为主体的地面公共交通系统;** (Pop: -1 mil) Mainly buses

工作重点 Priorities

之一：实施国家“公交都市” 建设示范工程

1. Demonstration Program of National Transit Metropolitan

结合国家低碳城市建设需要，选择30个城市实施“公交都市”建设示范工程。研究制定“公交都市”建设目标和评价指标体系。支持综合客运枢纽、智能交通系统和公共服务信息系统建设，通过5年的努力，在示范城市实现主城区500米上车，5分钟换乘。

To Select 30 cities as pilot cities. The goal is to have the coverage of bus stops reach one per 500 meters, the time of exchange 5 minutes.

之一：实施国家“公交都市” 建设示范工程

1. Demonstration Program of National Transit Metropolitan

✓ **按照年均1个百分点的城镇化增长速度，每年将有1300万人从农村转移到城市。**

Average Annual Urbanization Rate: 1%

✓ **按照人均出行次数2.5次，公交分担率维持在30%的水平不变计算，每年将新增公交客流需求量达36亿人次。平均每日新增1000万人次。**

Annual PT Ridership Increase: 3.6 bil

✓ **这相当于需要30条北京地铁4号线或400万辆小汽车或2万辆公共汽车来承担这些新增客运量。**

Transportation Needed : Metro Line 4* 30, or 4 mil cars, or 20,000 buses

工作重点 Priorities

之二：开展国家低碳交通运输体系建设示范工程

2. Demonstration Program of National Low Carbon Transport

- 交通运输部两批26个国家低碳交通运输体系建设示范城市
- 26 Demonstration Cities
- 每年投入节能减排专项资金5亿元，”以奖代补” 方式补贴节能减排项目
- 500 Million Per year

之三：实施城市交通信息提升工程

功能：行业监管、线路查询、站点查询、时刻信息

建设“一个平台、三大中心”1 Platform, 3 Centers

一个平台 1 Platform of :

✓ **建设城市公共交通运营监管信息平台** Urban PT Monitoring

三个中心 3 Centers of :

✓ **建设集智能调度、运营监控和公众出行信息服务等功能的城市公共交通智能调度和控制中心** Urban PT Coordinating & Controlling

✓**有条件的城市，建设城市轨道交通运营监控中心** Urban Metro Monitoring

✓**建设城市公共交通IC卡管理和信息交换中心** Urban PT IC Card Management

城市客运智能化技术应用示范工程

出租汽车服务管理信息系统试点工程

谢谢！

Thank you for your attention

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Public Transportation Policies and Market on Urban Rail Transit

Dr. Jia Wenzheng
China Academy of Transportation Sciences

January 29, 2013

Outline

- Backgrounds
- Urban rail transit planning, construction and operations
- Subway and Light rail projects
- Potential Markets

Backgrounds

- By 2011, the number of urban rail lines in China mainland is 58 and the total length is 1699 kilometers (1056 miles). The length of metros are 1403 km, and light rails 172 km.
- In the past 5 years, about 40 urban rail projects (more than 1000 kilometers) were completed.

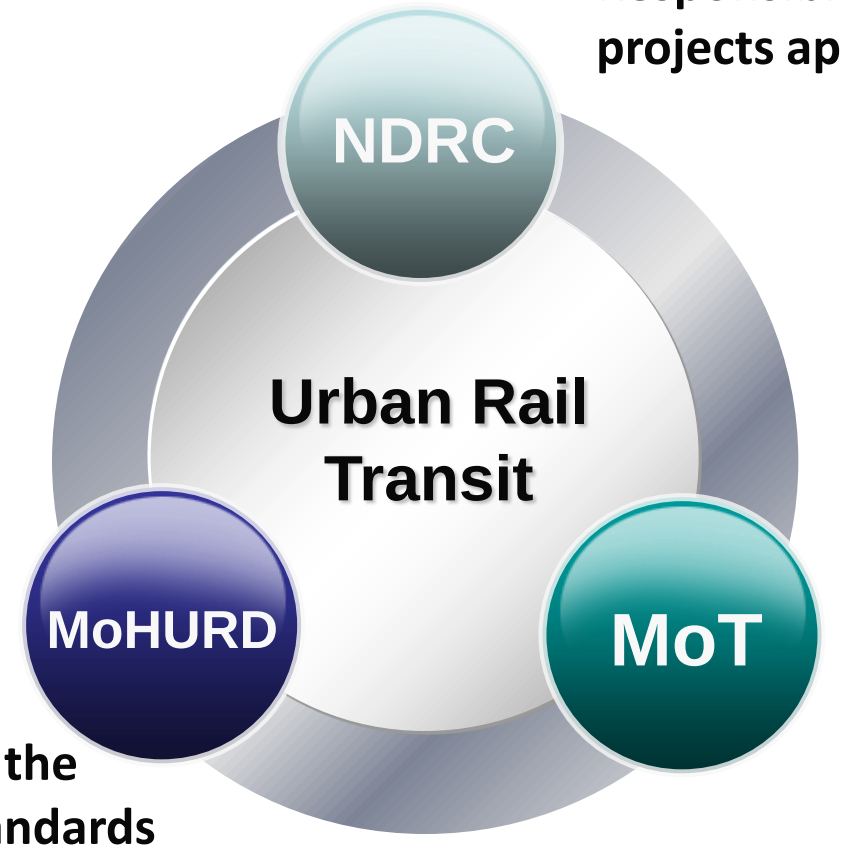
- **In 2012, about 15 urban rail projects (more than 300 kilometers) were completed.**
- **By 2015, the total length will be more than 3000 kilometers (1865 miles), and it would be more than 5500 kilometers (3420miles) by 2020.**

Planning, Construction and Operations

- **Three ministries are responsible for projects approval, construction and operations oversight of urban rails, respectively.**

- **They are National Development and Reform Commission (*NDRC*), Ministry of Housing and urban-Rural Development (*MoHURD*) and Ministry of Transport (*MoT*).**

Responsible for urban rail projects approval



Responsible for the construction standards and quality of urban rail projects

Responsible for operation oversight of urban transit including urban rails and buses

Investments and subsidies

- The investments are from local governments and there is no financial assistance from the central government.
- Local governments also have to provide subsidies for the operations.

Subway and Light rail projects

- Over 100 projects in 35 cities have been approved by NDRC.
- Total investment is about 1000 billions from 2011 to 2015.
- The 35 cities are as follows: Beijing, Shanghai, Guangzhou, Shenzhen, Tianjin, Chongqing, Dalian, Nanjing, Wuhan, Shenyang, Hangzhou, Changchun, Chengdu, Suzhou, Xi'an, Kunming, Foshan, Haerbin, Hangzhou, Ningbo, Wuxi, Zhengzhou, Changsha, Fuzhou, Dongguan, Nanchang, Qingdao, Hefei, Nanning, Guiyang, Lanzhou, Xiamen, Wulumuqi, Shijiazhuang, Lanzhou

Potential Markets

- **E&M Systems Manufacture**
  - **Rolling stocks (Critical parts of traction, network, braking, and et al.)**
  - **Signaling (ATP subsystems)**
  - **Power system**
  - **Communications (Wireless systems)**

Potential Markets

- **RAMS**
  - **is used by some projects, including Shanghai Metro Line 10, Beijing MTR Line 4, Shenzhen Metro Line 3, Chengdu Metro Line 1.**
  - **Regulations could be drafted to enforce safety certification on E&M systems, priority to signaling.**

Thanks

Chinese Metropolis Transportation

Statistics and Information offered by YANG qingshan
Presented by SUN Aixin
CPTA
01/29/2013

Basic Information

- Chinese metropolis transportation is supervised by Ministry of Transport of the People's Republic of China. How to meet traffic requirement of a huge population is always greatly challenged.

Population

In 2011, the total population of 655 cities is about 620,000,000.

- Among them

-2 cities with a population of 10,000,000

-21 cities with a population of 3,000,000

-temporary residents 200,000,000

- each year ,more than 13,000,000 people move to cities.

- Severe Challenges

-traffic jam

-infrastructure shortage

-energy consumption

-environment pollution.

Statistics of Chinese Public Transportation

-3300 public transportation enterprises

-45000 buses,120000 taxies, 1356 ferries

-bus lines 28.920.000 kilometers

-Bus Rapid Transit lines 8450 kilometers

-Rail Transit lines 1200 kilometers

-More than 15 big cities, including Beijing,Jinan,Zhengzhou, Changzhou, Kunming have set up a Bus Rapid Transit system which lasts over 400 kilometers.

(Statistics edited in 2012)

Public Transportation Priority

-For a better solution

-December, 2012;

Guidelines of Public Transportation Priority awarded by the State Council of the PRC

-states the importance of improving public transportation condition.

-aim for developing a public transportation to improve traffic efficiency and enhance low-carbon.

- increase

-financial investment on public transportation

-passengers capacity of Bus Rapid Transit.

- enhance the management of BRT

Additionally, Chinese government also aim to

- Every single 500 square meters needs to be covered by a bus stop.
- Public transportation in central area of cities needs to be increase from 40% to 60%.

Management Facilities

- e-payment system.

- 3G system


车载远程监控客户端V2.0
视频预览
电子地图
轨迹回放
详细配置
当前服务器：122.224.216.149 账户：200113004
设备列表
黄龙线
浙CE2837
浙CE3550
浙CE3470
浙CE3541
Chan01
Chan02
Chan03
Chan04
浙CE3538
Chan01
Chan02
Chan03
Chan04
浙CE2726
设备信息
设备名称 浙CE3550
设备ID 100104103
所属区域 黄龙线
车牌号码 浙CE3550
车牌颜色
车辆品牌
车辆颜色
车辆类型
所属单位 乐清快速
司机姓名 马金听
手机号码 665011
入网时间 2009-10-17
车辆使用性质
设备名称:浙CE3550 通道:1 流量:96 kbps
2009年11月14日 星期六 14:52:40
浙CE3541
设备名称:浙CE3541 通道:2 流量:0 kbps
2009年11月14日 星期六 14:52:40
东经: 120°39'24.0"
北纬: 28°02'15.9"
车速: 0.00 KPH
浙CE3541
设备名称:浙CE3541 通道:1 流量:64 kbps
2009年11月14日 星期六 14:52:39
东经: 120°39'24.3"
北纬: 28°02'15.9"
车速: 0.00 KPH
浙CE3538
设备名称:浙CE3538 通道:1 流量:184 kbps
云台控制
预置点
GPS信息
报警信息
在线状态 设备名称 设备ID 所属区域 经度 纬度 速度(
在线 浙CE2837 100104001 黄龙线 120°37' 15.51" E 28°01' 05.38" N 0.0
在线 浙CE3550 100104103 黄龙线 120°39' 29.20" E 28°02' 49.63" N 0.0
离线 浙CE3470 100104104 黄龙线
在线 浙CE3541 100104105 黄龙线 120°39' 23.95" E 28°02' 15.90" N 0.0
在线 浙CE3538 100104106 黄龙线 120°39' 24.30" E 28°02' 15.91" N 0.0
在线 浙CE2726 100104107 黄龙线 121°01' 34.47" E 28°12' 43.65" N 0.0
14:53:26
2009 - 11 - 14
CPU利用率： 13%
设备的总数： 034
设备在线数： 021
地图车辆数： 021

- GPS system

New Energy Uses

- Oil consumption usually accounts for more than 40% of the cost. Environment friendly energy therefore win positive response from public transportation enterprises.
- Now, more than 40 cities wildly use new energy resources. In 2011, 6000 buses use new energy. 2012, the number is 14000, which accounts for 3% of total buses in use.

Hybrid Power Automobile

- With evident oil-saving effect, Hybrid Power Automobile becomes more and more popular. A research tested by Jinan Bus Cooperation shows that, Hybrid Power Automobile usually save oil about 24% on average. It is predicted that the number of hybrid power automobile will reach in 60000.

Hybrid Power Automobile

- 

Electric vehicles

Electric vehicles are also welcomed in China.


YUTONG BUS
宇通客车

Thanks!

What's ARWG

- Established in 2009;
-30 members in 2012;
-Lead by Commercial Section of US Embassy, China;
-Government Chair: Landon Loomis; Industry Chair: Xie Yang
-Secretariat: Executive Director Peng Aiqun (Ida); Staff Gao Fei

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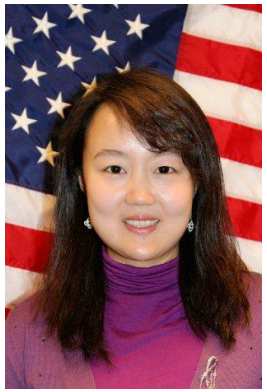
United States of America
Department of Commerce



imagination at work

American Rail Working Group
U.S.Embassy Commercial Section,China

ARWG 30 members by Dec 2012

What ARWG Done in the past three years

-Road Show in Wu Han, Xi'an, Chengdu, Chongqing,Tianjin, Kunming, Changchun, Shenyang, Shanghai, Nanjing, Qingdao, Changzhou;
-Business negotiation with more than 10 Railroad Bureaus, key manufactures and CNR, CSR headquarters;
-High level meeting with local governors, e.g., Shaanxi, Jilin, Jiangsu
Leverage Ambassador Locke visited Jilin and CNR CRC, got top level support

What ARWG focus

Organization

- Relationship contribution with governmental department such as MOR
- Supply policy guide for members
- Organize communication event with key customers/company
- Share industry information with members

Industrial Products

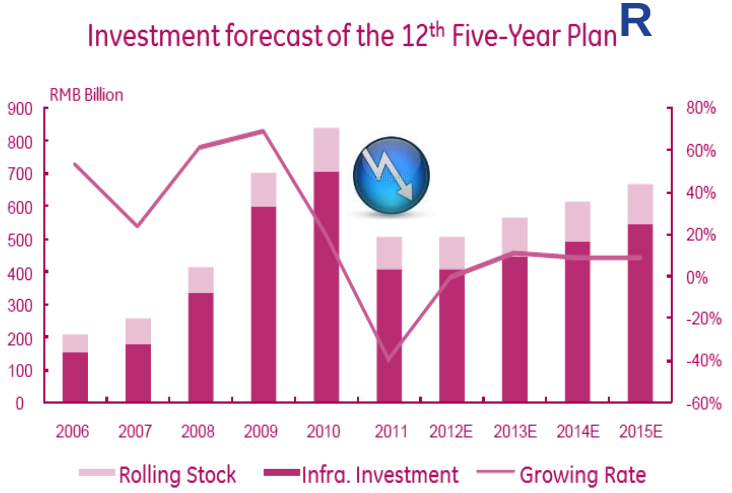
- Locomotives

- HSR

- Mass Transit
- Heavy haul
- New Materials in Rail

China Railway Industry Trends

Railway/MOR



Data Source: MOR & CICC Report

After 7-23-2011 Accident：

- Railway construction slow down, especially HSR
- Financing Issue: debt vs. assets over 60%
- MOR Priority: Safety-Service-Profit-Reform

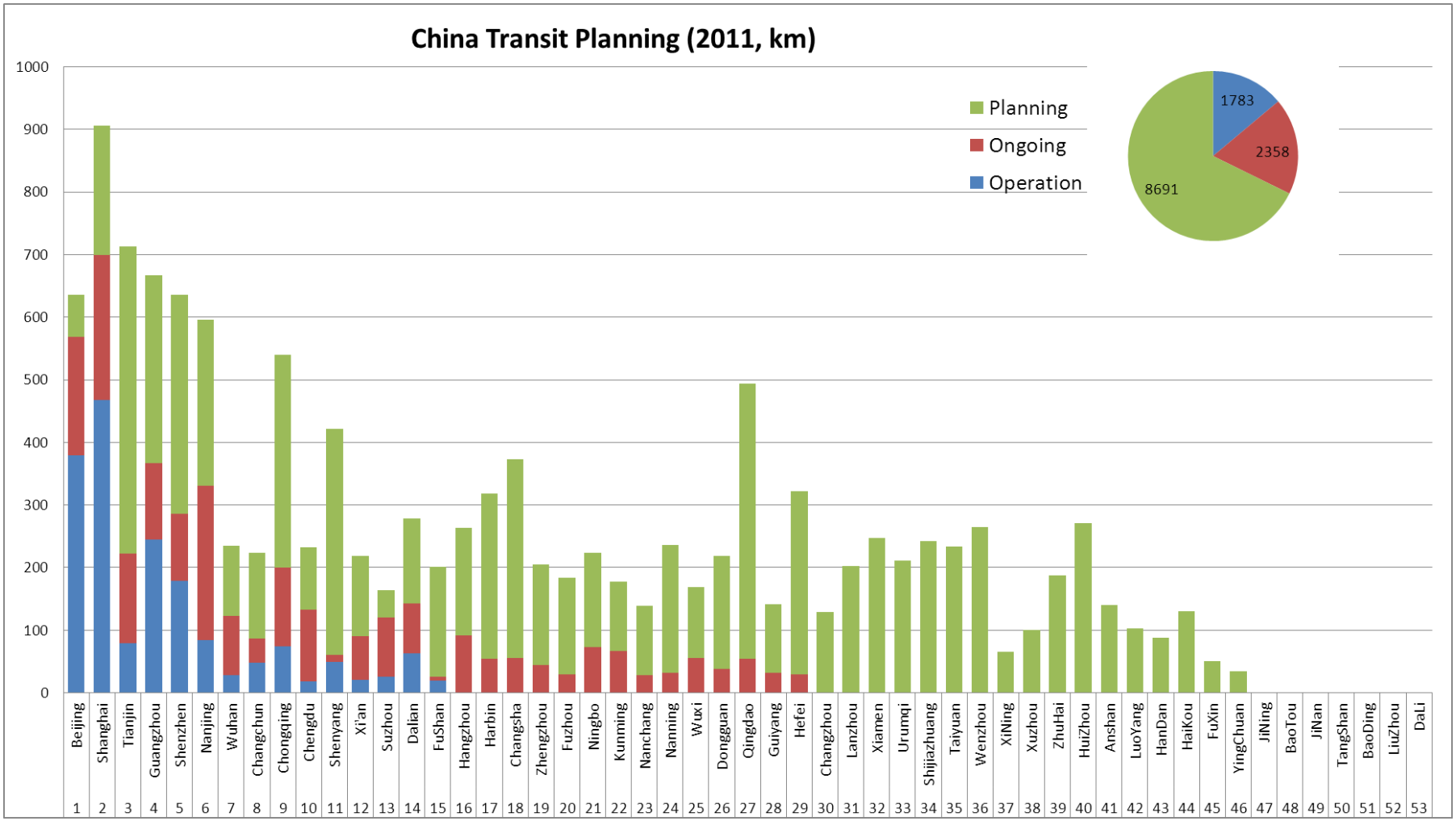
- **Shift investment to freight**… 28↑% capacity by '15
  - western lines: newly built 15,000km …
  - new loco purchase in average ~800 units/yr… D-loco 20%
  - coal corridors capacity double, 3bn tons …
- **Drive fuel saving innovation**…
- **Become cautious in driving "Go Global"**
  - engagement change from MOR to key railway companies
- **Accelerate Reform: empower RRB from '12**

Urban Transit

- **China STILL No 1 market in the world… 20+ lines / year**
- **Government STILL drive Localization (55% for SIG)**

  Localization = Buy China; Localization ≠ Tech. Transfer
- **Most global SIG suppliers STILL winning China thru. local partnership**

What our opportunity in mass transit



What's our opportunity in HSR

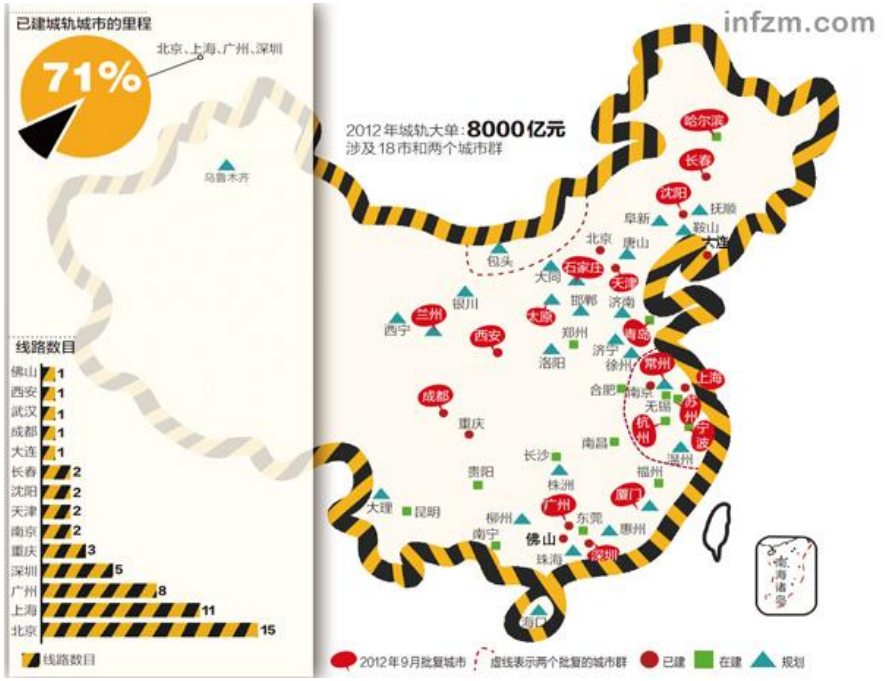
U.S. Commercial Service's Support for American Companies in China's Metro Market

Peng Aiqun (Ida)
Senior Commercial Specialist
U.S. Embassy Commercial Section
Beijing, China

January 29, 2013

China's Key Cities with Urban Rail Transit Development Plan during 12th Five Year Plan

- Currently, China is the world's largest urban rail market;
- Beijing, Shanghai, Guangzhou, Shenzhen share 70% of the built urban rail transit mileage in China;
- In Year 2012, NDRC approved a total investment of RMB800 billion urban rail projects in 18 cities and two city clusters;
- To 2015, 37 cities in China will have metro/light rail;
- To 2015, total mileage of metro/light rail in China will reach to more than 4000 KM



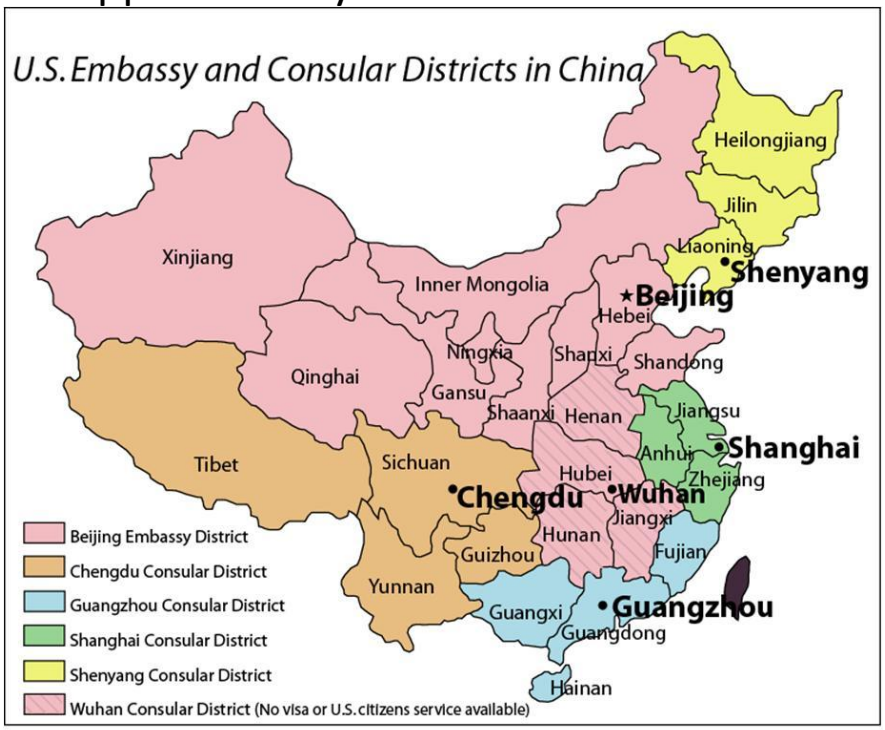
Important Urban Rail Projects in China, from NDRC's 12th Five Year Plan on Overall Transportation System 2012/07/23

Construction of urban rail transportation network system in **Beijing, Shanghai, Guangzhou, Shenzhen**; built main backbone of urban rail transit in **Tianjin, Chongqing, Chengdu, Shenyang, Changchun, Wuhan, Xi'an, Nanjing, Hangzhou, Fuzhou, Nanchang, Kunming, Dalian, Qingdao, Ningbo, Harbin, Suzhou, Wuxi, Changsha, Zhengzhou, Dongguan, Nanning**; planning and construction of urban rail transit backbone line in **Hefei, Guiyang, Shijiazhuang, Taiyuan, Xiamen, Lanzhou, Jinan, Urumqi, Foshan, Changzhou, Wenzhou.**

U.S. Commerce Footprint in China

Global Access, Trade Expertise, Customized Business Solutions

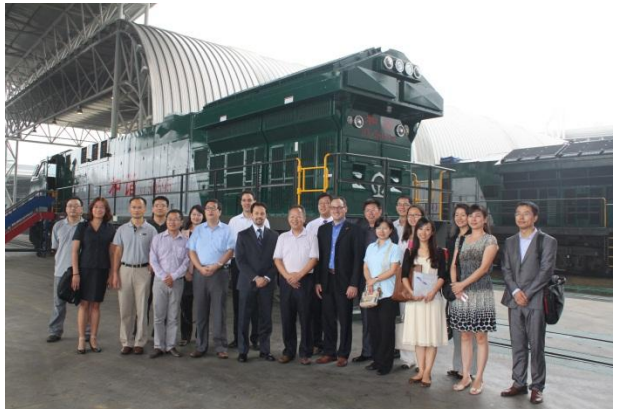
- The U.S. Commercial Service is the trade promotion arm of the U.S. Department of Commerce's International Trade Administration;
- Located across the United States and in U.S. Embassies and Consulates in nearly 80 countries including China;
- The U.S. Commercial Service in China has approximately 125 Commercial Service officers and trade specialists:
  - Beijing (Embassy)
  - Shanghai
  - Guangzhou
  - Shenyang
  - Chengdu



Website: http://export.gov/china/

How Commerce Helps

- Business Matchmaking:
  - Gold Key Service (GKS)
  - Business Facilitation Service (BFS)
  - Single Company Promotion (SCP)
- Trade Mission and Trade Shows:
  - road shows and trade shows in China;
  - International Buyer Program (IBP) to the U.S.
- Market Intelligence: Due Diligence (ICP)
- Commercial Diplomacy: advocacy
- Trade Counseling
- **American Rail Working Group (ARWG) Platform: FCS China's Platinum Key Service (PKS) Program for rail industry**



American Rail Working Group (ARWG)

U.S. Embassy Commercial Section, China

Introduction about ARWG

- Established since 2009 by U.S. Commercial Service in Beijing, China;
- Strengthen cooperation between the U.S. government and industry with their partners in the Chinese rail and metro industry sectors;
- Annual membership: $900 for large company and $600 for SME;
- A total of 30 American companies so far;
- Structure of ARWG: one US Government Chair + One Industry Chair; Secretariat; Sub committees

Scope of Work for ARWG

- ARWG monthly meeting;
- ARWG brochures;
- Platform for cooperation with USG such as DOC, DOT, FRA, USTDA, USEXIM;
- ARWG road shows to major cities for both rail and metro opportunities;
- U.S. Pavilion at the major trade shows in China's rail and metro market;
- Social Network Event with the Chinese counterparts, such as MOR, CARS, CNR, CSR, CRCC, CREC and local government for metro projects;
- Internal communication on market opportunities

ARWG Roadshows to 12 Cities for Rail and Metro Industry

- Wuhan, August 2009;
- Xi'an, April, 2010;
- Chengdu, March, 2011;
- Chongqing, March, 2011;
- Tianjin, June, 2011;
- Kunming, June, 2011;
- Changchun, June, 2012 (Ambassador led mission);
- Shenyang, June, 2012;
- Qingdao, September, 2012;
- Shanghai, September, 2012;
- Changzhou, September, 2012;
- Nanjing, September, 2012

American Rail Working Group
U.S.Embassy Commercial Section,China

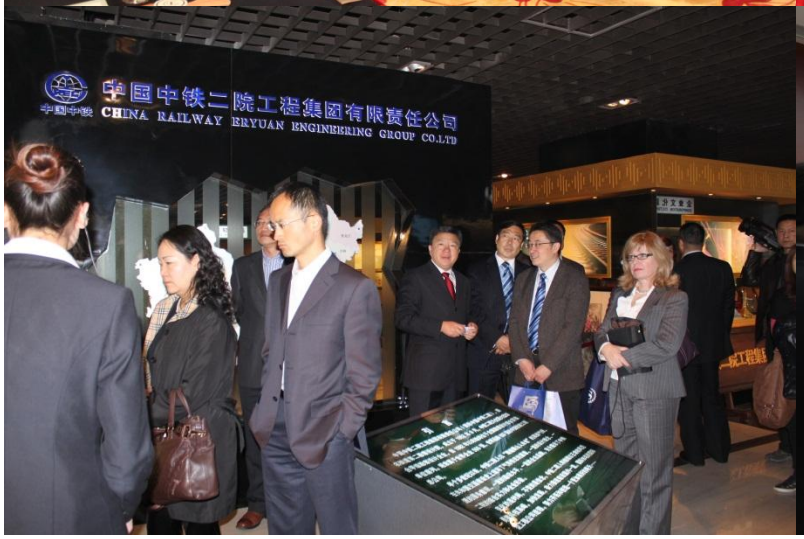
To Join, contact:
aigun.peng@trade.gov

Example of ARWG Roadshow to Chengdu for Urban Rail Sector
March, 2011

March 30, 2011	**Wednesday**
Morning	Session with Chengdu Rail Transport Company, CREC No. 2 Bureau, No. 8 Bureau, No. 23 Bureau, and Southwest Jiaotong University
9:10 – 9:25	Introduction by Chengdu Rail Transportation Corporation
9:25 – 9:40	Introduction by China Railway No.2 Engineering Group Co. Ltd
9:40 – 9:55	Introduction by China Railway No.8 Engineering Group Co. Ltd
9:55-10:10	Introduction by China Railway No.23 Engineering Group Co. Ltd
10:10 – 10:25	Introduction by Southwest Jiaotong University
10:30 – 12:00	Introductions by 15 American companies
12:00 – 12:20	Q&A
12:30 – 14:00	Buffet Lunch hosted by the American Rail Working Group
Afternoon	Site Visit to the Second Survey & Design Institute of China Railways (“Tie Er Yuan”)
18:00 - 21:00	Dinner hosted by Tie Er Yuan for the ARWG

U.S. COMMERCIAL SERVICE
United States of America
Department of Commerce

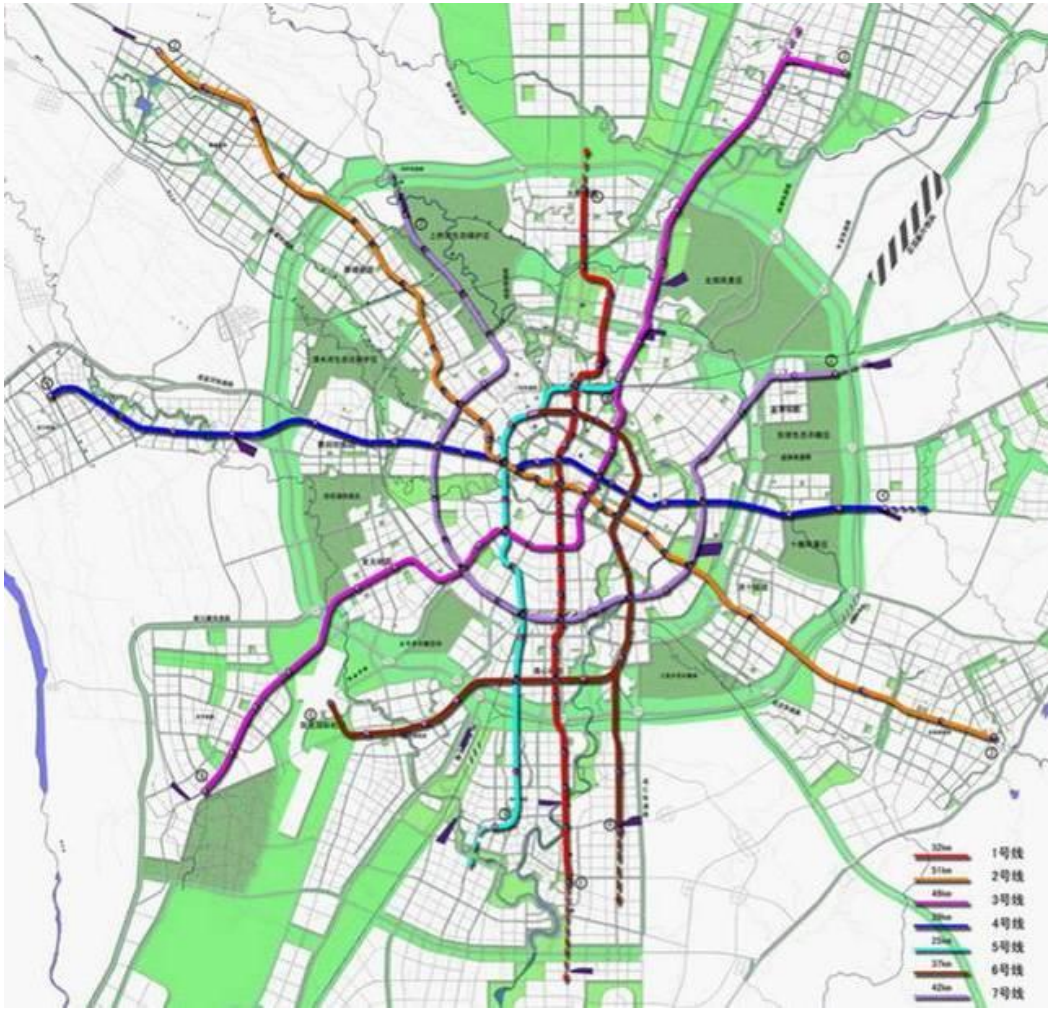
Example of ARWG Roadshow to Chengdu for Urban Rail Sector March, 2011



PPT made by Chengdu Rail Transport Company: Shield Construction and Main Equipment for Chengdu Metro Plan

U.S. COMMERCIAL SERVICE
United States of America
Department of Commerce

Network Plan of Chengdu Rapid Rail Transport
From Chengdu Rail Transport Co., Ltd.

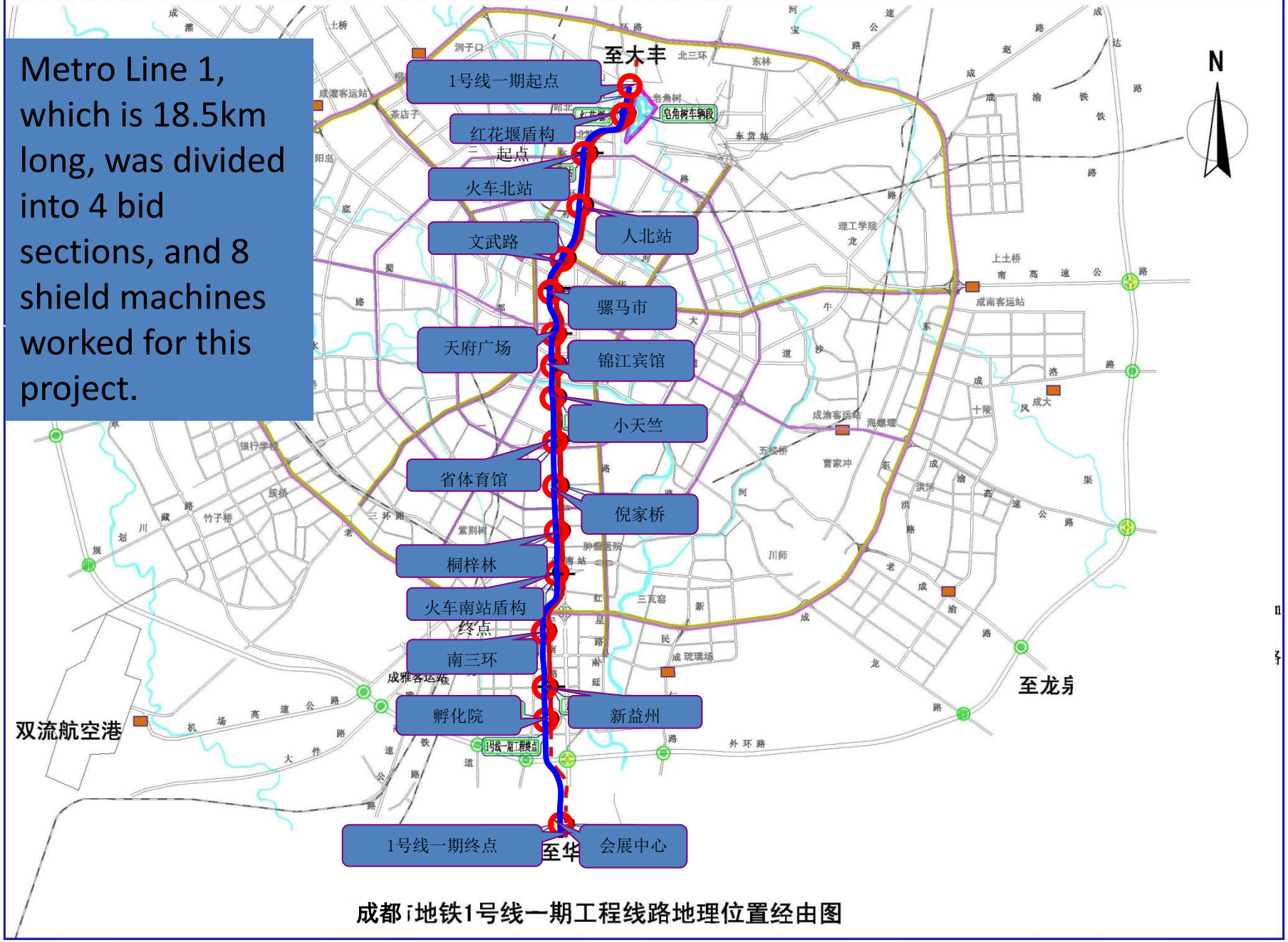


The network is formed of 7 lines, with a total length of 274 km. The network covers 80% of the 156 ㎢ city area, and the network density reaches 0.83.

Line	Length	Stations
1	32km	DF—HY
2	51km	PT—PA
3	49km	XD—DS
4	39km	LC—SL
5	25km	ZOO—HYX
6	37km	SW—HYD
7	42km	LJN—LTX
Total	274 km	

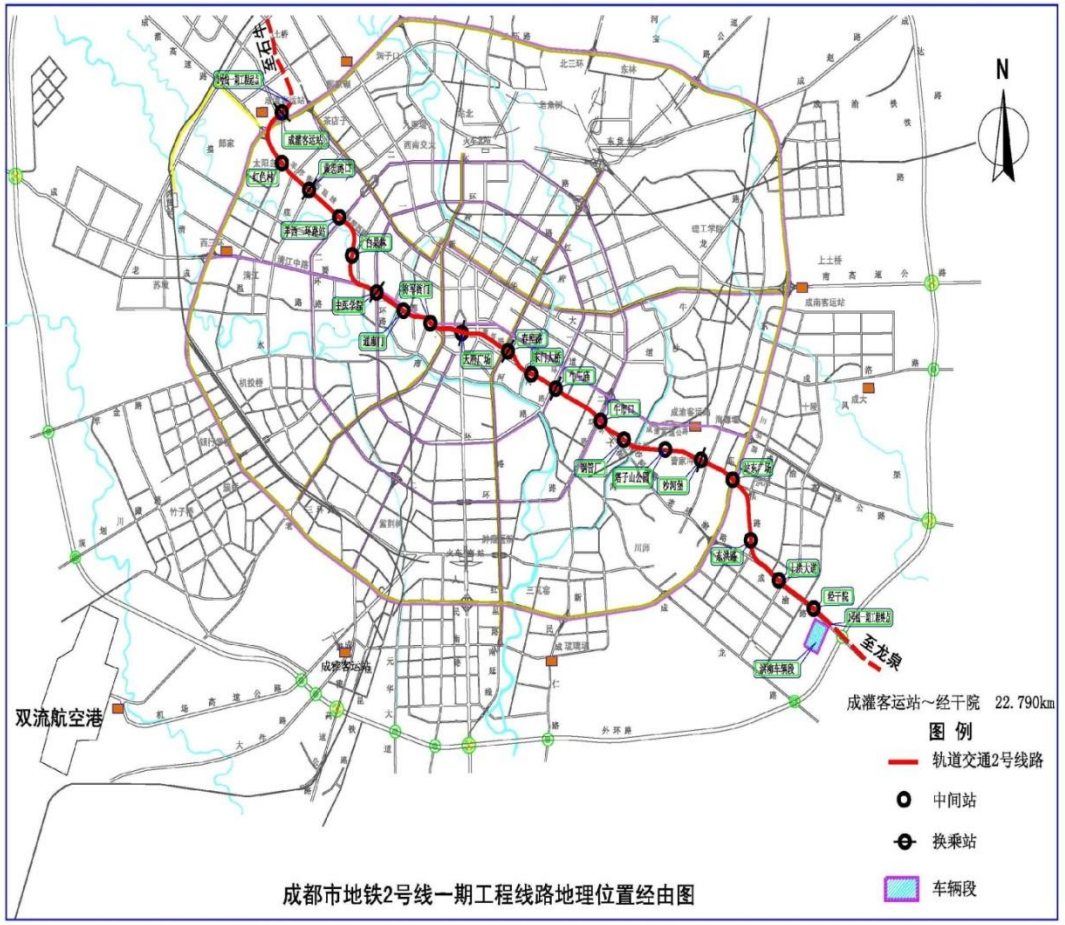
Shield Machines for Metro Line 1

Metro Line 1, which is 18.5km long, was divided into 4 bid sections, and 8 shield machines worked for this project.



Example of Chengdu Metro: Shield Machines for Metro Line 2

The total length of underground line of Phase 1 Project and West Extension Project of Metro Line 2 is 24.808km, and 21 shield machines are working for the line.



Example of Chengdu Metro: Trains

- Chengdu Metro Line 1
  - 采用B型车，6辆编组
  - Type of Rolling Stock: Type B
  - Train Configuration: 6-car train
  - 设计最高运行速度：80公里/小时
  - Designed Maximum Speed: 80km/h
  - 实际运营速度：73公里/小时左右
  - Actual Maximum Speed: about 73km/h

- Chengdu Metro Line 2
  - 采用B型车，6辆编组
  - Type of Rolling Stock: Type B
  - Train Configuration: 6-car train
  - 设计最高运行速度：80公里/小时
  - Designed Maximum Speed: 80km/h

Example of Chengdu Metro: Power Supply

- Chengdu Metro Line 1
  - 供电方式：架空接触网
  - Power supply mode: Overhead Contact System
  - 供电电压：DC1500V
  - Power supply voltage: DC1500V

- Chengdu Metro Line 2
  - 供电方式：架空接触网
  - Power supply mode: Overhead Contact System
  - 供电电压：DC1500V
  - Power supply voltage: DC1500V

Example of Chengdu Metro: Platform Screen Door

- Platform Screen Doors are applied at both Chengdu Metro Line 1 and Metro Line 2

Example of Chengdu Metro: Signaling and Communication System

- For the signaling system, both Chengdu Metro Line1 and Line2 use CBTC. By using CBTC, the minimum headway will be 2 minutes.
- For the communication system, both Chengdu Metro Line 1 and Line 2 use SDH system and TETRA system.

Major Industry Show in China

Metro China 2013

- Approved by: Ministry of Commerce, P. R. China
- Host: China Communications and Transportation Association (CCTA), Urban Rail Transit Committee
- Co-Host: China Academy of Railway Sciences (CARS)
- Show dates: 2013/11/19 – 2013/11/22
- Show venue: Beijing International Exhibition Center
- Website://www.metro-china-expo.com/

Thank You!

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Thank You!
We hope you had a great trip to China!

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E-mail: jwalker@apta.com