

The Policy-Related Road Transport Research in MOT

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Content

- **Background**
- **Policy-Related Transport Research**
- **International Cooperation**



1. Background

(1) Economic growth and Transportation

- **Chinese GDP: 7,497 billion USD (2011)**
- **Transportation**
 - ◆ **Support China's economic development miracle**
 - ◆ **Provide the basic condition for people to live, work, study and travel**
 - ◆ **Promote the unity and prosperity of the national market**
 - ◆ **Contact China with the world**
- **Everyday the transportation system**
 - ◆ **provides the intercity travel services for 66 million people**
 - ◆ **achieves the freight volume of 70 million tons**
 - ◆ **supports 38 million families realize the “dream” to have their own cars, and enrich their life**



■ Statistics in the year of 2011



- ◆ Passenger traffic by highway and waterway: 33.03 billion
- ◆ Cargo traffic by highway and waterway: 32.37 billion tons
- ◆ Cargo throughput by ports above designated size: 9.07 billion tons
- ◆ Container throughput by ports above designated size: 160 million TEUs

● Mileage of expressway: 95 thousand km (2012)

● Motor Vehicle Number: 225 million (2011)

Automobile: 106 million

(2) Different Stage, Different Problem



Beijing

- Congestion in Urban Areas
- Air pollution
- Land/Population
- Energy
- Traffic safety



Beijing Subway



(3) Change of the Growth Model

■ National Development Strategy in Next 10 Years

◆ A new growth model

- Development is based on improved quality and performance, not relied on infrastructure investment, real estate and heavy-industry

◆ Economic development driven more by:

- Domestic demand
- Scientific and technological progress
- Workforce of higher quality and innovation in management
- Resource conservation and a circular economy
- Modern service industry and strategic emerging industries

◆ Accelerate the construction of the western region



2. Policy-Related Transport Research

(1) The National Strategy of Innovation-driven Development

■ Promote integration of science and technology with economic development


- ◆ Enterprises play the leading role
- ◆ The market points the way
- ◆ Enterprises, universities and research institutes work together

■ Government Support

- ◆ New technologies research
- ◆ Products and production processes development
- ◆ New business models



(2) The Policy-Related Transport Research

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- **Transport must support the *National Strategy* and sustainable development**
 - ◆ **Infrastructure: not only construction, but also maintenance and improving the performance**
 - ◆ **Improving the quality of transportation services**
 - ◆ **Improving safety and emergency support capabilities**
 - ◆ **Development of green transport system**



■ Research Projects

- ◆ **Transportation investment and financing and asset management**
- ◆ **Multi-model transportation and modern logistics development strategies and policies**
- ◆ **Road transport and urban passenger development policy**
- ◆ **Low-carbon transportation system framework and the development policy**
- ◆ **Intelligent transport systems development strategy and implementation outline**

(3) Output of Policy-Related Transport Research

① National Research Plan in Transport Area (2011-2015)

◆ Highway infrastructure construction technology

- Infrastructure durability and safety
- Mountain highway construction

◆ Highway maintenance technology

- Mountain highway maintenance
- Winter road maintenance

◆ Operation and management technology in Public transport

- Public Transport Management and Service
- Multi-modal Passenger Transit Center Management and Service





◆ **Transport safety and emergency management**

- ❑ Road operational risk assessment and security management
- ❑ Monitoring and management of highway network operation
- ❑ Truck and Bus transport safety management
- ❑ Mountain Highway Safety

◆ **Green Transport**

- ❑ Ecological environment protection and restoration in road construction
- ❑ Highway waste materials recycling
- ❑ Transportation energy consumption and carbon emissions statistics
- ❑ Drop and pull transport and auto train technology
- ❑ Eco-drive



② The Outline of Intelligent Transport Systems

◆ Research

- ❑ Data Collection and Management
- ❑ ITS for Traffic Safety
- ❑ Cooperative System
- ❑ Eco-ITS
- ❑ Communication in ITS

◆ Demo and Application

- ❑ Intelligent Public Transport Management and Service
- ❑ Urban Transport Operation Coordinating and Management
- ❑ Highway Network monitoring and Incident Management
- ❑ Commercial Vehicles Monitoring and Management
- ❑ Travel Information Service System



③ The Policy for Improve the transportation science and technology innovation ability

- ◆ **Increase the funds of transportation science and technology**

- ◆ **Public-Private Partnerships**

- Technology Innovation Center in Enterprise

 - ◇ **Financial support by government**

- Funding for enterprises to increase expenditures on R&D, including

 - ◇ **new materials**

 - ◇ **new product and engineering process**

 - ◇ **new road maintenance equipments**

 - ◇ **intelligent transport system/service**

- Encourage competition in the construction and service market

4. International Cooperation

(1) Examples of Cooperation

- ◆ **China-EU Cooperation (government support)**
 - Potential demand, priority area definition and development policy on infrastructure, automobile and ITS
 - Traffic information service



BITS

Dynasty



◆ China-Canada



Transport
Canada

Transports
Canada



■ Joint research Program Phase I

- ◆ Program period: 2009-2011
- ◆ Goal: International Highway Corridor between China and Canada
- ◆ Respective burden to their respective costs
- ◆ 3 Themes

□ Supply Chain Management

- ◆ Logistics Information Platform
- ◆ Cargo and Container Tracking Technology
- ◆ Supply Chain Management Standardization

□ Cold Climate Technologies

- ◆ Subgrade Pavement Maintenance Technology in Cold Climates
- ◆ Impact of Climate Change on Road Operations

□ Road safety

- ◆ Advanced Driver Assistance Systems
- ◆ Vehicle and Infrastructure Coordination
- ◆ Human Factor (Naturalistic)

■ Joint research Program Phase II

- ◆ 2013-

(2) Cooperation in the Future

■ Cooperation Way

- ◆ Technical Information Exchanges
- ◆ Joint Research
- ◆ Seminars and Workshops
- ◆ Standardization Cooperation

■ Relative Factors in Cooperation

- ◆ Policy Context
- ◆ Demand
- ◆ Institutional Challenges
- ◆ Effective Coordination
- ◆ Financing and Contracts
- ◆ Business Model



Thank You !

