



Future of Transportation in Asia

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The Future Challenging Prospects

- ▶ **Resilient** Transportation
- ▶ **Decarbonizing** Transportation
- ▶ **Inclusive** Transportation
- ▶ **Sharing** Transportation
- ▶ **Affordable** Transportation
- ▶ **Seamless** Transportation



Resilient Transportation: Risk Management

- ▶ **Haiti** earthquake (2010), Japan **Tohoku** earthquake, tsunami and **Fukushima** nuclear disaster (2011), **Thailand** flooding (2011), US **Sandy** hurricane (2012), China **Lushan** earthquake (2013), Philippines **Haiyan** typhoon (2013) all have resulted in many deaths and injuries



Haiti earthquake



tsunami and Fukushima nuclear disaster



Thailand flooding



US Sandy hurricane



Japan Tohoku earthquake



China Lushan earthquake



Philippines Haiyan typhoon



Resilient Strategy (恢復力, 韌性)

- ▶ Reserve Capacity (**Redundancy**)
- ▶ Alternative Route (**Flexibility**)
- ▶ Rent Modes from Partner (**Collaboration**)

**A transportation sector needs
resilience strategies in a highly
vulnerable environment**



Decarbonizing (低碳) Transportation: Avoid-Shift-Improve

- ▶ **Avoid:** use less of transportation resources(land use, telecommunication)
- ▶ **Shift:** switch from a less sustainable transportation way to a more sustainable one (time, route, mode)
- ▶ **Improve:** increase the fuel efficiency of existing modes (clean fuel)

**ESG (Environment, Social,
Governance) for
transportation operators,
users and governments**

Inclusive (包容力) Transportation: Social Equity

- ▶ **Inclusive transport refers to transportation systems designed to meet **diverse needs** of people of all **ages, genders, abilities, and locations.****
- ▶ **DRTs, Universal Design , etc.**



Sharing (共享) Transportation: Bike/Car Sharing System

- **MaaS (Mobility as a Service, Complementary Modes)**
- **Own or Share a Bike/Car**
- **Public Bike Sharing: First and Last Mile Solution**



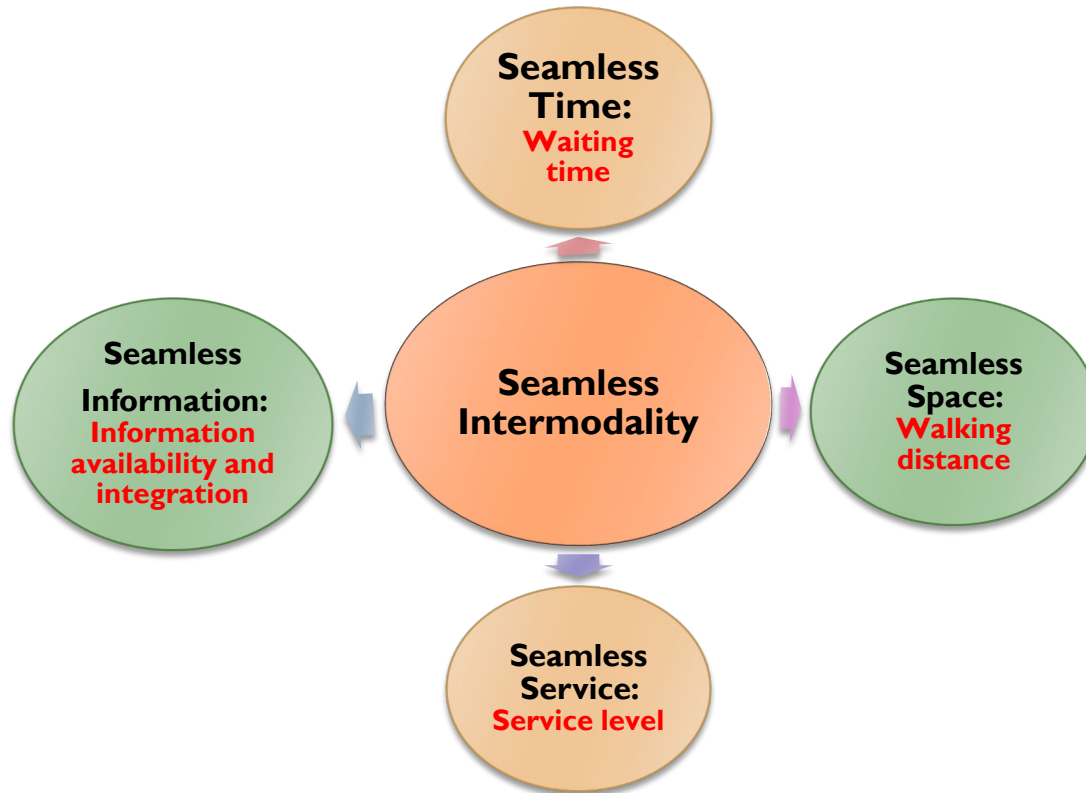
Affordable (可負擔) Transportation: Innovative Transportation Financing

1. **Tax Increment Financing (TIF):** designate the tax increment **districts**, specify the tax payment period, and identify the tax items such as the **land tax and property tax**
2. **Transit Oriented Development (TOD):** is **mixed-use** of development typically focused within a **500 meter radius of a transit station**

Value Capture Scheme + TIF + TOD



Seamless (無縫) Transportation: Intermodality of Public Transportation



**Smart transportation for
MaaS (Mobility as a Service)**

Summary

Transportation infrastructure and service in tomorrow is unlikely to be the same as it is at present. **Many changes** have occurred on the needs of travelers and operators, the policy directions in government regulators and the development in technology, we need to **change our thinking and actions** in future transportation.



Activities of Easts

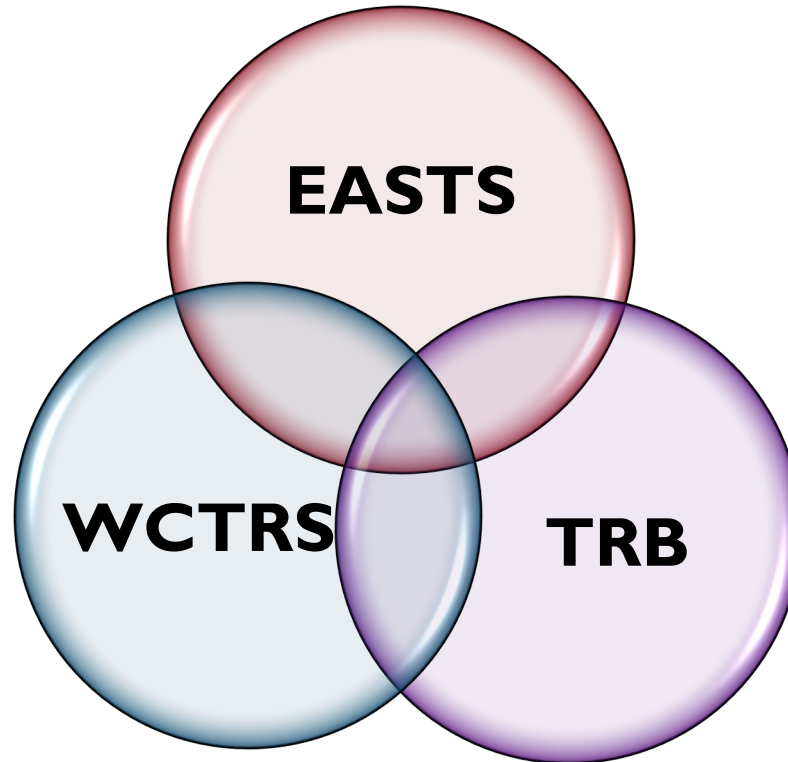


What is EASTS?

EASTS = **E**astern **A**sia **S**ociety of **T**ransportation **S**tudies



Three Major Transportation Conferences



Purpose of the EASTS

1. To **share the experiences** in Eastern Asia
2. To provide the incentives for **young experts**
3. To **enhance cooperation** between different disciplines; academicians and practitioners



Current 19 Domestic Societies of EASTS

AUSTRALIA

CAMBODIA

CHINA

HONG KONG

INDONESIA

JAPAN

KOREA

LAO PDR

MALAYSIA

MONGOLIA

MYANMAR

NEPAL

NEW ZEALAND

PHILIPPINES

SINGAPORE

SRI LANKA

TAIWAN

THAILAND

VIETNAM



Activities of EASTS

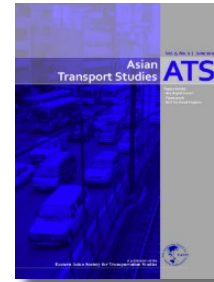
- ▶ **EASTS is an international cooperative society for researchers and practitioners of over 18 countries and regions.**
- ▶ **Utilizing “human network” in transportation field, EASTS is promoting various activities such as:**
 - **International Conferences**
 - **International Research Group(IRG)**
 - **International Cooperative Research Activity (ICRA):research grant**



Journal Publication (EASTS Journal/ATS)

Selected reviewed papers are published in the Journals

- **Asian Transport Studies (ATS)**
- **Journal of EASTS**
- **Proceedings of EASTS**



ONLINE JOURNAL:

The ATS, journal and proceedings can be freely accessed on the website

Other Awards

- ▶ **Outstanding Presentation Award**
- ▶ **Best Domestic Society Award**
- ▶ **Outstanding Transportation Project Award**



Future Prospects of EASTS

- ▶ More **societies**
- ▶ More **younger researchers**
- ▶ More **enterprises**
- ▶ More **cooperative activities**
- ▶ More **presentation papers**
- ▶ More **recognition of Easts journals**





Thank You Very Much!

