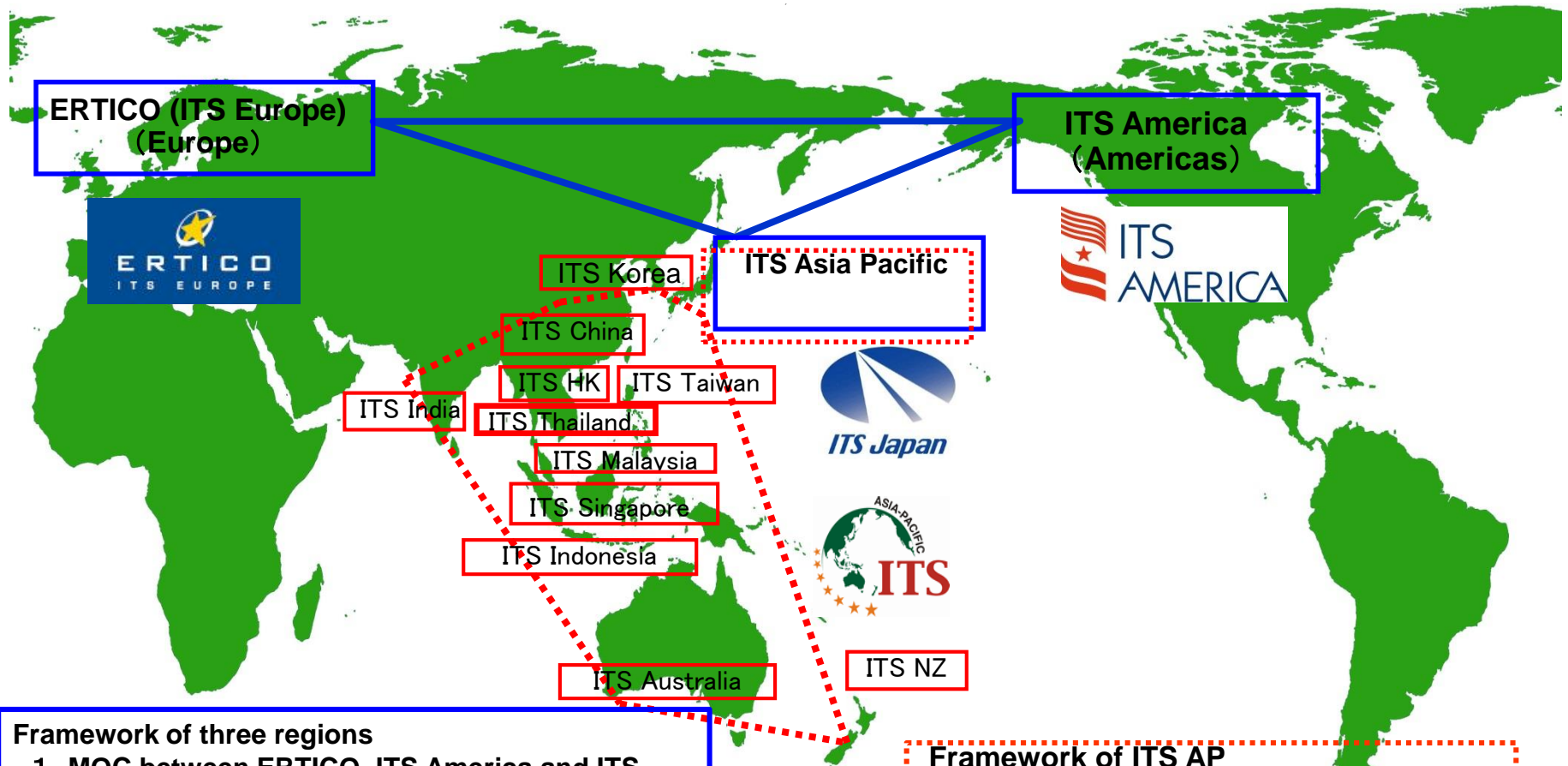


ITS: Global Context

Framework for the International Activity



Framework of three regions

1. MOC between ERTICO, ITS America and ITS Japan
 - ① ITS World Congress (rotating three regions)
 - ② Collaboration to promote ITS Development
2. BOD of ITS World Congress
3. ITS Japan is representing Asia Pacific
ITS Japan is responsible for selecting a venue of ITS World Congress in Asia Pacific

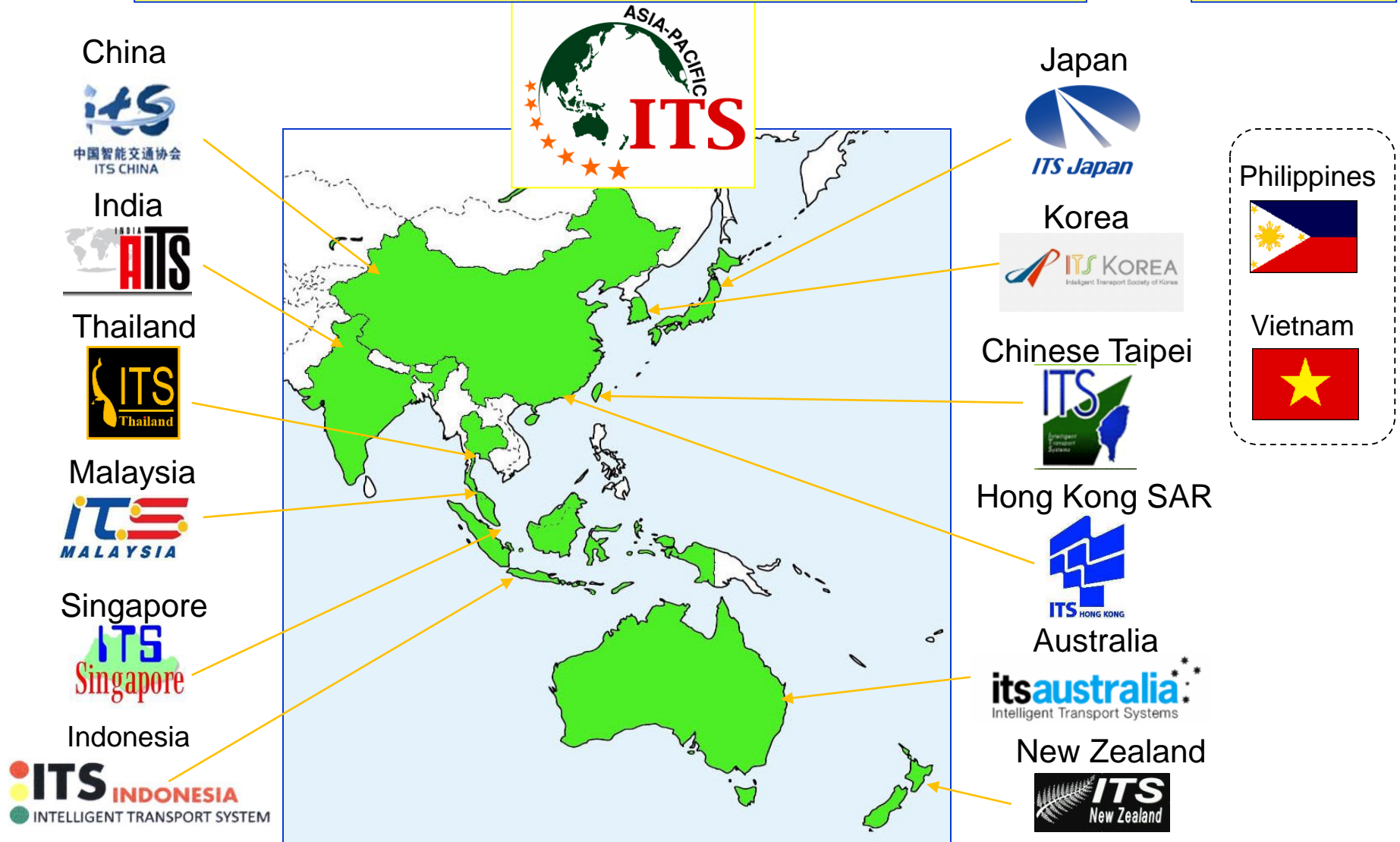
Framework of ITS AP

1. MOU among 12 ITS organizations in AP
 - ① Promoting ITS in AP
 - ② Organizing ITSAP Forum
 - ③ Support ITS World Congress
2. ITS AP BOD
3. ITS Japan is a secretariat of ITS AP

ITS Organizations in Asia-Pacific

Memorandum of Understanding Signatories

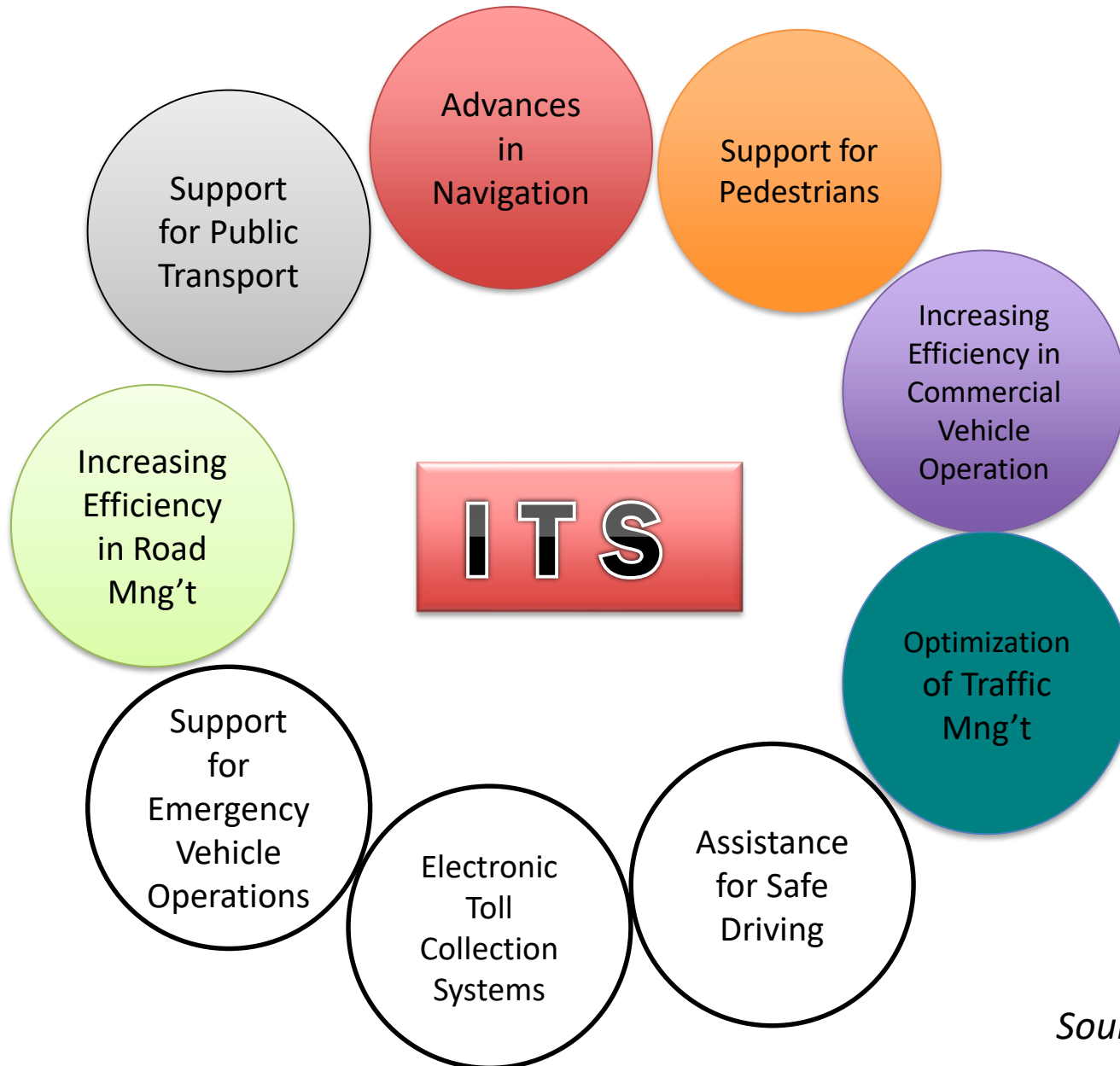
Partners



ITS in ASEAN Countries

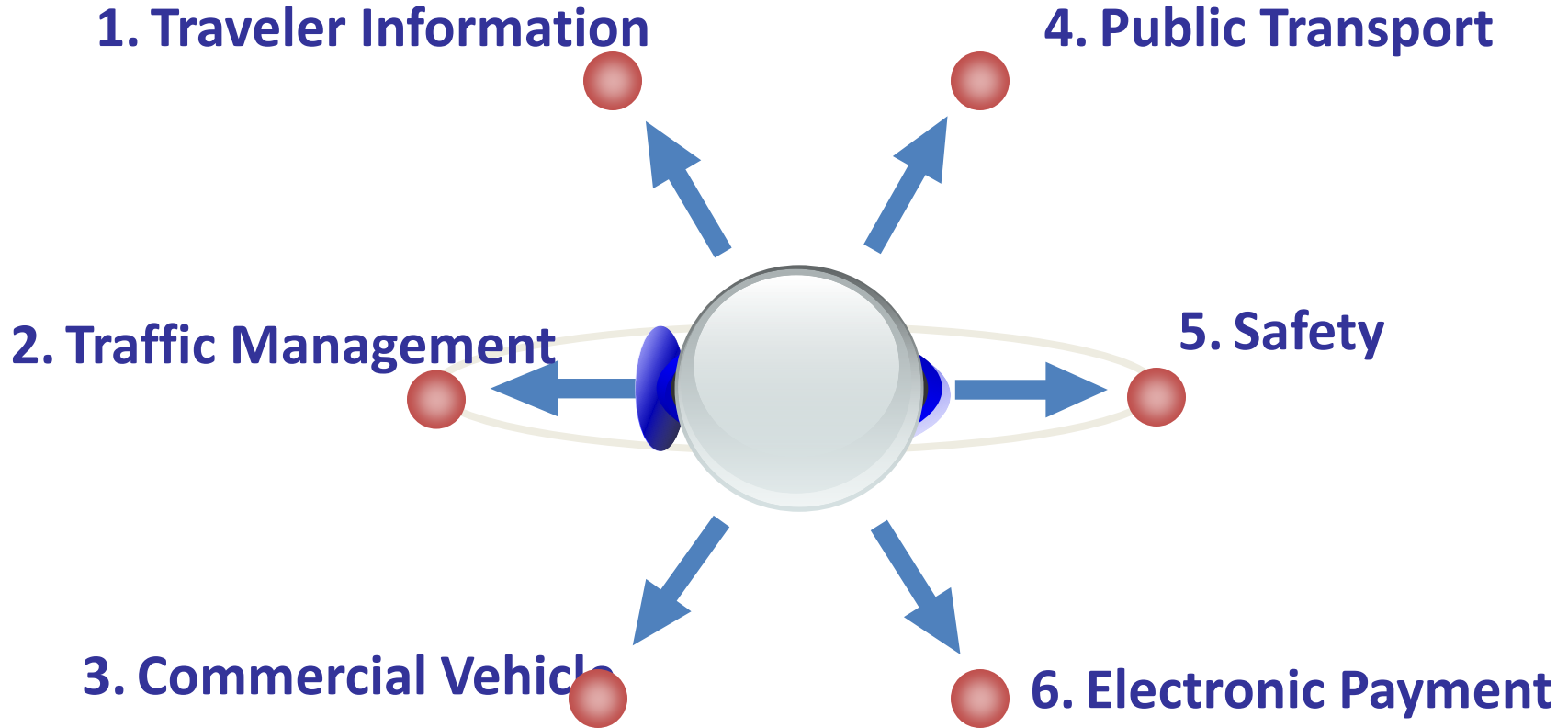
Country	Year Established	Model
Singapore	2001	Private sector
Thailand	2005 (started as a Forum)/2008	Academe
Malaysia	1999/2008	Private sector
Indonesia	2011	Government

9 Areas of ITS Deployment: Japan



Source: ITS Japan

6 Areas of ITS Development/ Deployment: Thailand



Current ITS themes

- Intelligent, connected and automated vehicles
- Big data analytics
- Sustainable smart cities
- Multimodal transport of people and goods
- Safety for drivers and vulnerable road users
- Policies, standards, and harmonization
- Innovative pricing and TDM
- Cybersecurity and data privacy

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS (DPWH)
METROPOLITAN MANILA DEVELOPMENT AUTHORITY (MMDA)

MEGA MANILA REGION HIGHWAY
NETWORK INTELLIGENT TRANSPORT
SYSTEM (ITS)
INTEGRATION PROJECT

FINAL REPORT

JULY 2013

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

CTI ENGINEERING INTERNATIONAL CO., LTD
ORIENTAL CONSULTANTS CO., LTD
METROPOLITAN EXPRESSWAY CO., LTD
MITSUBISHI RESEARCH INSTITUTE, INC.

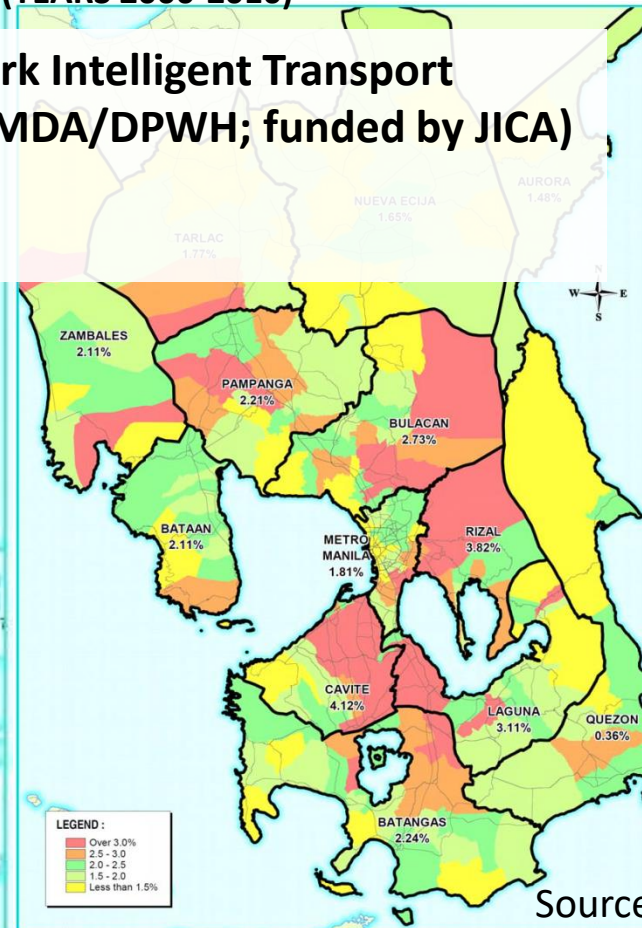
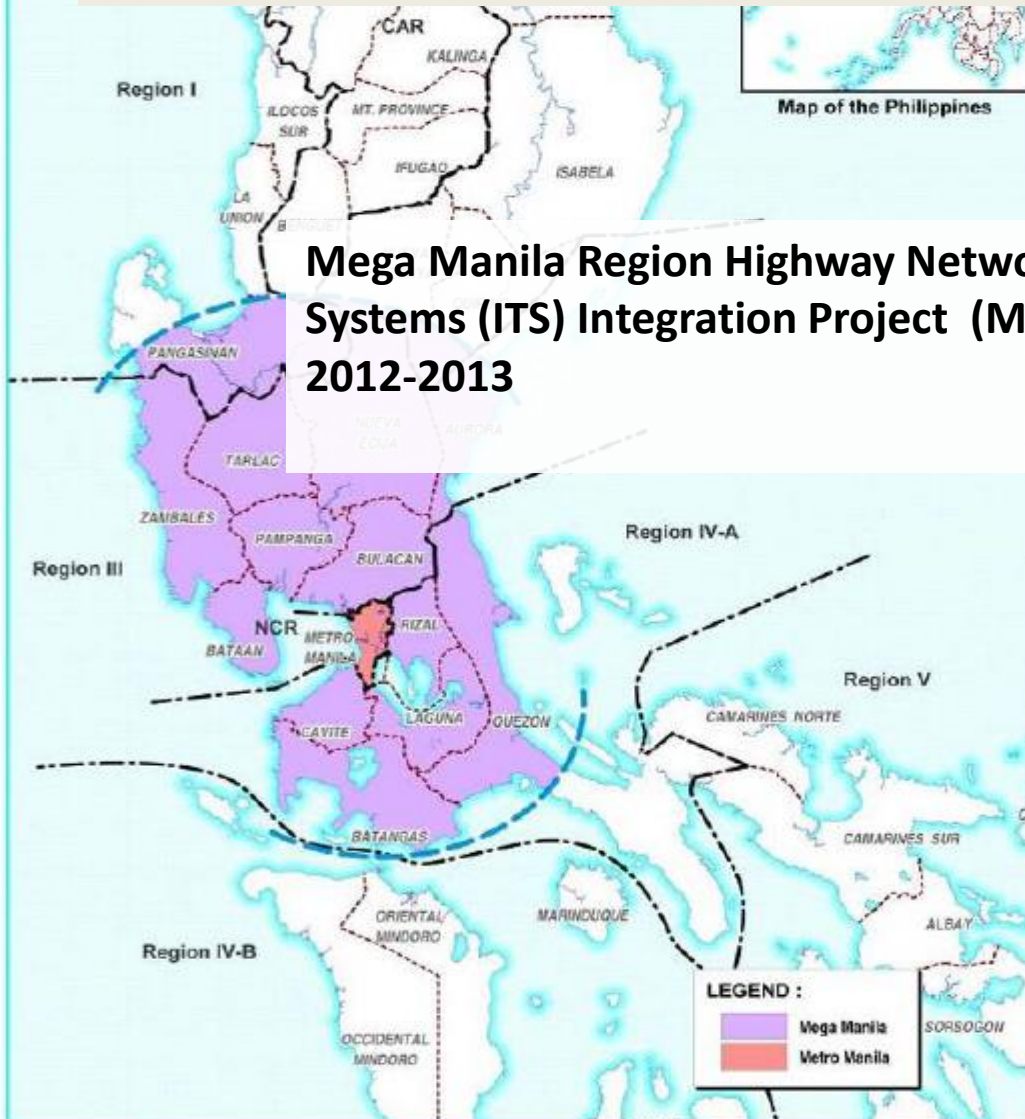
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Towards Development of ITS Framework

ITS Master Plan for Metro Manila +2 regions (Region 3 and 4A)

Mega Manila Region Highway Network Intelligent Transport Systems (ITS) Integration Project (MMDA/DPWH; funded by JICA) 2012-2013

AVERAGE POPULATION GROWTH RATE (YEARS 2000-2010)



Source: NSO

ITS Goals and Services

Major Transport Problems

Metro Manila

- Serious Traffic Congestion
- Limited Traffic Information
- Road Crash
- Aggravation of Environment
- Bad Driving Manner
- Violation of Traffic Rules and Lack of Enforcement
- Paralyzed Traffic by Floods

Mega Manila

- Traffic Congestion
- Limited Traffic Information
- Bad Driving Manner and Lack of Enforcement
- Paralyzed Traffic by Floods
- Low Rate of ETC Users on Expressway
- Independent Operation By Each Toll Operator

Overall Goals of ITS Services

- ❖ To Reduce Traffic Congestion
- ❖ To provide Safe, Comfortable, and Less Frustrated Travel
- ❖ To Contribute for Sound Environment

Targets of ITS Services to Achieve Development Visions

Metro Manila

- Improvement of Mobility
- Sound Environment
- Safe and Comfortable Life with Less Road Crash
- Resiliency to Natural Disaster

Mega Manila

- Faster and More Reliable Travel
- Safer and More Comfortable Travel
- Economical Travel
- Environmentally Sound Travel

Over - all Goal of ITS Service

- * To reduce traffic congestion
- * To provide safe, comfortable and less frustrating travel
- * To contribute for sound environment



Major Traffic Problems

- Traffic Congestion of Urban
- Traffic Bottlenecks (Intersection, Bus Stop, Road Works, etc.)
- Limited Traffic Information to Road Users
- Road Crash
- Aggravation of Environment (traffic pollutions)
- Bad Driving Manner and Violation of Traffic Rules and
- Bad Pavement due to Overloaded Trucks
- Paralyzed Traffic by Flooding and Other Natural Disaster
- Lack of Rail Operation Information

Objectives of ITS Service

- (1) To provide enough Traffic Information for Comfortable Travel and Maximization of the Use of Existing Transport Facilities
- (2) To reduce Traffic Congestion and Bottlenecks as well as to achieve better environment
- (3) To improve Traffic Safety
- (4) To assist enforcement of Traffic Rules and Regulations
- (5) To Improve Resiliency to Natural Disaster by Information Provision
- (6) To Assist Better Road
- (7) To Provide Better Services for Rail Passengers

ITS Services in relation to Development Visions

- Improvement of Mobility
- Sound Environment
- Safe and Comfortable Life with Less Road Crash
- Resiliency to Natural Disaster



ITS Development Areas

- * Traffic Signal Control : (2)
- * Traffic Information Provision : (1), (2), (5)
- * Traffic Safety Assistance : (3)
- * Public Utility Vehicle Management : (4)
- * Traffic Enforcement Assistance : (4)
- * Road Management Assistance : (6)
- * Automated Toll and Fare Collection : (7)

ITS Development Areas	ITS User Service
1. Traffic Signal Control	(1) Advance Traffic Control System at Intersections to improve traffic efficiency at intersections (2) Emergency Vehicle Priority System for safer lives of people
2. Traffic Information Provision	(3) Upgrading of Traffic Information Collection and Provision System on real-time basis for faster and comfortable travel and to maximize the use of existing road facilities (4) Events Information Provision System to reduce traffic congestion at and around event sites (5) Route Guidance System to direct drivers to less congested routes to maximize the use of existing road facilities (6) Information Provision System for Temporary Traffic Bottlenecks to achieve less frustrating trips and to reduce traffic congestion at temporary traffic bottlenecks (7) Traffic Management System at Large-scale Shopping Malls to reduce localized traffic congestion (8) Parking Space Information Provision System to improve traffic flow in CBDs and for better road user service (9) Commercial Vehicles Location System for more orderly trips of commercial vehicles
3. Traffic Safety Assistance	(10) Danger Warning System to reduce road crashes to improve traffic safety (11) Pedestrian Safety Support System to reduce road crashes (12) Weather Condition and Prediction Information Provision System for safer travel and to improve resiliency to natural disaster.
4. PUV Management	(13) Bus operation Monitoring and Control System to reduce traffic congestion at bus stops and to eliminate illegal bus operations (14) Rail Operation Information Provision System for better passenger services
5. Traffic Enforcement Assistance	(15) Traffic Rules Surveillance and Control System to achieve smooth traffic flow and to reduce road crashes (16) On-street Parking Control to improve traffic capacity for smoother traffic flow (17) Over Speeding Control System reduce road crashes (18) Overloaded Truck Control System to provide better surfaced roads.
6. Road Management	(19) Upgrading of Road Condition Information Collection to improve Road Management and to Secure Service Level
7. Toll/Fare Collection	(20) Road Pricing System to reduce cars on the roads for smoother traffic flow (21) Common Ticketing System for easier transfer.

Prerequisite to successful ITS implementation

- Strong ICT
- Strong R&D
- Based on need; not a technology push
- Strong gov't. – industry – academe linkage
- Gov't. convinced that ITS is the way forward



REPUBLIC OF THE PHILIPPINES
SECURITIES AND EXCHANGE COMMISSION
SEC Building, EDSA, Greenhills
City of Mandaluyong, Metro Manila

COMPANY REG. NO. CN201505534
COMPANY TIN 008-986-637

CERTIFICATE OF INCORPORATION

KNOW ALL PERSONS BY THESE PRESENTS:

This is to certify that the Articles of Incorporation and By-Laws of

INTELLIGENT TRANSPORTATION SYSTEMS ASSOCIATION OF THE
PHILIPPINES, INC.

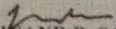
were duly approved by the Commission on this date upon the issuance of this Certificate of Incorporation in accordance with the Corporation Code of the Philippines (Batas Pambansa Blg.68), and copies of said Articles and By-Laws are hereto attached.

This Certificate grants juridical personality to the corporation but does not authorize it to undertake business activities requiring a Secondary License from this Commission such as, but not limited to acting as: broker or dealer in securities, government securities eligible dealer (GSED), investment adviser of an investment company, close-end or open-end investment company, investment house, transfer agent, commodity/financial futures exchange/broker/merchant, financing company, pre-need plan issuer, general agent in pre-need plans and time shares/club shares/membership certificates issuers or selling agents thereof. Neither does this Certificate constitute as permit to undertake activities for which other government agencies require a license or permit.

As a registered corporation, it shall submit annually to this Commission the reports indicated at the back of this certificate.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of this Commission to be affixed at Mandaluyong City, Metro Manila, Philippines, this 19th day of March, Twenty Fifteen.




FERDINAND B. SALES
Director
Company Registration and Monitoring Department

Creation of ITS
Philippines
organization in
March 2015.

ITS Organization

- AIM: bring together the professional interests of those in public and private organizations, practitioners, academicians and researchers related to ITS, and create opportunities for networking and interaction.