Intelligent Transport System (ITS) Program

February 17, 2017

9 Areas of ITS Deployment: Japan

Source: ITS Japan

ITS

2013 → 2014 → 2015 → 2016

- Traffic Information Provision
- Road Management
- Traffic Management/Traffic Signal Control
- PUV Management
- Traffic Safety Assistance
- Traffic Enforcement Assistance
- Toll/Fare Collection

- PhilMATIS
- ATPMS
  - PUBFIX
  - LOCAL SIM

- **Smart Integrated ITS City**
- Traffic Control and Information System
- **CATCH-ALL**
- ATPMS Roll out
- **WSN – RFID TRACKING**
- Bike Sharing System

GTFS (Open ITS Database)

OTHER DEVELOPERS

Mobile APPS

DESIRED OUTCOMES

CONGESTION
REDUCTION
SAFETY
ENVI
MOBILITY

DOST OUTCOMES

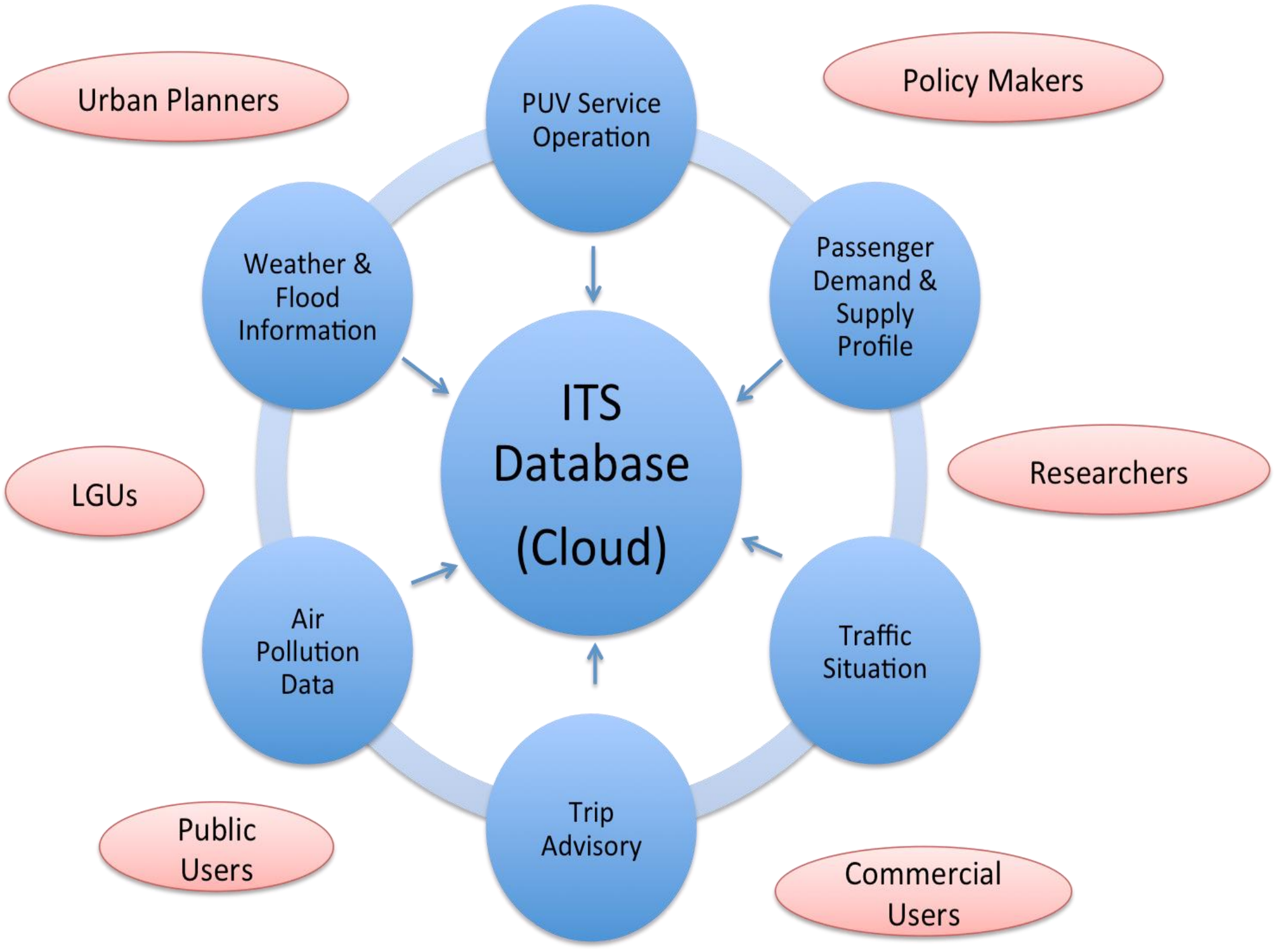
20% Increase Mobility
Real Time Vehicle Performance
Fuel Economy

Nat'l Harmonized R&D Agenda

Poverty Alleviation

Inclusive Growth

Envisioned ITS Framework



Current ITS Initiatives

PUV Management

PUBFIX (jeepney fleet)

Passenger Count with origin-destination

Route Demand Forecasting

Fuel Economy

WSN for colorum detection

Contactless identification and detection of Legal PUVs

Passenger Colorum reporting capabilities

PUV Dispatch System

Traffic Management/Traffic Signal Control

LOCAL SIM (Traffic Mgt)

Passenger Count with origin-destination

Route Demand Forecasting

Track Passenger Transfer (History)

Fuel Economy

Traffic Simulation Models

CATCH-ALL

Camera vision for identifying plate numbers and violations

Real Time / Automatic Display of Traffic Violations

Vehicle Identification and Recognition

Current ITS Initiatives

Traffic Information Provision

- ATPMS
- Traffic Volume
- Traffic Forecasting
- Air Quality Data

Support for Public Transport / Pedestrians

- BIKESHARE
- Increase pedestrian mobility
- Smart Locks and Data Analytics
- Health Benefits
- Last Mile Solution

Current ITS Initiatives vis a vis targets & demonstration

PROJECT	TARGET OUTPUT	PROBLEM ADDRESSED
PUBFIX (jeepney fleet)	Fuel Economy	ROAD DECONGES-TION (INCREASE MOBILITY BY 20%)
WSN Colorum Detection	Reduce Vehicle on the roads	
LOCAL SIM (Traffic Mgt)	Traffic Simulation Models	
CATCH-ALL	Contactless Apprehension of Traffic Violators	TRAFFIC AWARENESS (COMMUNTER AND DRIVER)
ATPMS	Traffic Volume & Forecasting	
	Air Quality Data	

2018 Call For Proposal - Sustainable Mass Transport

- ❑ *Intelligent Transport System*
  - Vehicle-to-vehicle connectivity and information sharing
  - Road infrastructure-to-vehicle
  - Automated Parking Space Detection System
  - Harmonized RFID/WSN using multi-path transmission protocol & cognitive frequency
  - PUV tracking for fleet management & driving behavior

- ❑ *Sea Transport Research on Marine Vessels*
  - Standard sea-worthy hull design using alternative indigenous lightweight materials
  - Navigational Route Capacity Measurement & Analysis for inter-island connectivity

- ❑ *Mass Transport Systems (Train, PUV)*
  - Prototype double decker bus development and fuel efficiency analysis in compliance to Euro 4 Standards
  - Development of Positive Train Control (PTC) components for railway system

Photo Credit to: DOST and PCIEERD funded Transport Projects

Possible S&T Collaboration and Initiatives with Line Departments

- GIS-based PUV route information and rationalization modeling system

- Digitization of government databases, online access and front line services

- Integration of the Public Transport Plans in the Comprehensive Land Use Plan (CLUP) - Smart Integrated Cities

- Smart Infrastructure, Intermodal Transport and Logistics Systems

Thank You!