SUWON AP FORUM
2025 수원 ITS 아태총회
ITS가 제시하는 초연결 도시

ITS Developments in Taiwan

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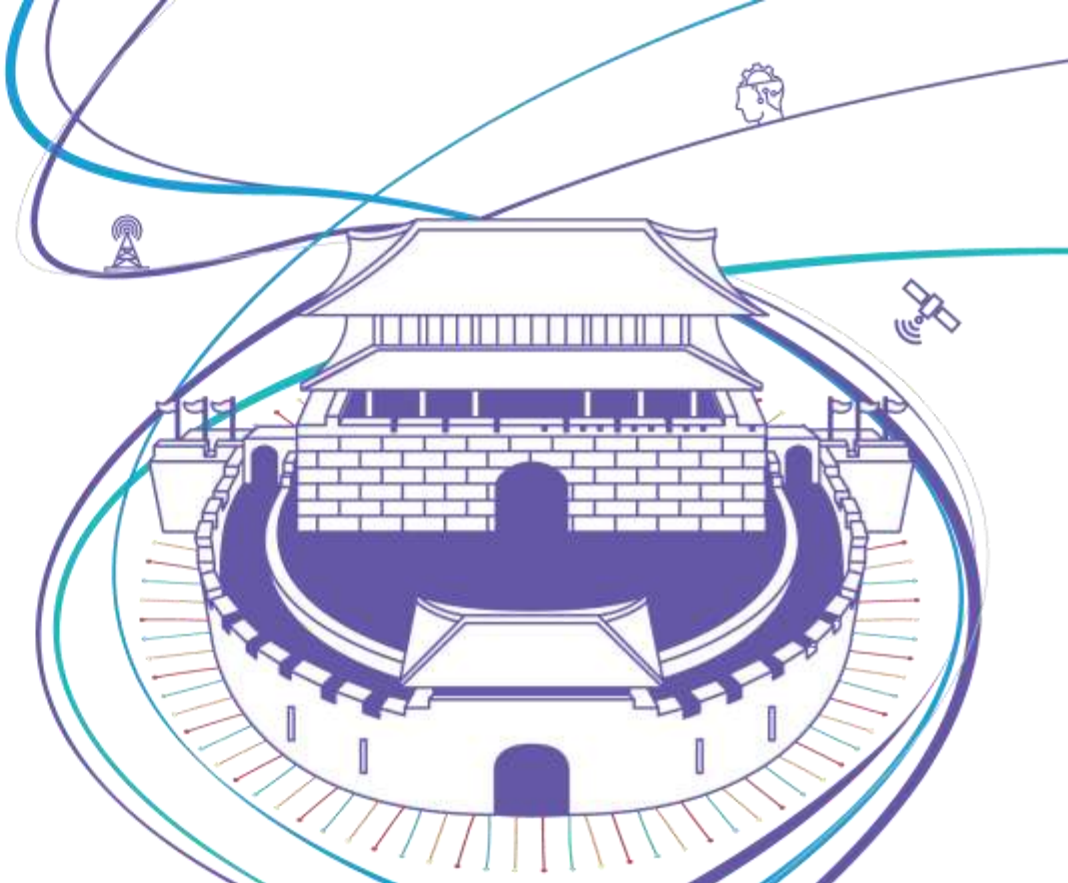
Vice President & WCBoD
ITS Taiwan
Chinese-Taipei



Taiwan

36,000 square kilometers Population **23.5 million**

High population density of around **650** people per square kilometer

70% of the area is mountainous, with an average elevation of **1,150** meters

15 million motorcycles

8 million automobiles

GDP USD **800 billion**,

GDP per capita **USD 34,000**

Taiwan Government's Challenges

The aging and urbanization of **the population**

Fast tracking **ICT** capability, e.g. **Big Data**, and **AI** in **smart city management**

Climate-resilient transformation in transportation infrastructure planning

Global Population Increase in **30** years:

2 billion

Population in **2050**

20 million

Fastest Growing Age Cohort:

65 And above

Age Cohort above 65 in 2025

20%

Taiwan Urban Population in 2024

68%

2 global trends:

- **Population Aging**
- **Urbanization**

ITS Vision 2030

Drive **Digital Twins** and **AI to** enhance transportation systems, facilitating a **safer**, **more efficient**, and **sustainable society** focused on **human needs**.

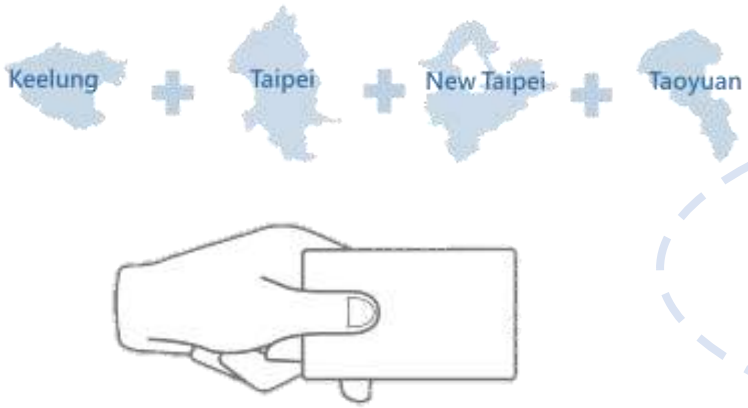
Taiwan ITS Rolling Planning Process

- Central government multi-year ITS budget (2024-2028)
- Balancing between centrally incentivised strategic initiatives and local proposal, e.g.
  - C-V2X Implementation
  - AI in Taffic Management Centers
  - ADAS implementation and more
- Local implementation and reporting

ITS Practices Sharing

Megacity Pass – Leaping Public Transportation

- All you can ride for NT$1,200 (40 USD) within 30 days in 4 Major Cities in Northern Taiwan



Ticket Integration and Preferential Rates

Metro + City Bus + Highway Bus + Taiwan Railway + YouBike 30/60 minutes free

One card in hand
And easy to go

- Passenger volume increased 11%~30%

Launched on July 1st, 2023

Metro ↑ 13.9%

City Bus + Highway Bus ↑ 10.8%

YouBike ↑ 29.5%

MLFF ETC – 25Y of Operational Excellence

8.33 M
ETC Users

17 M/day
ETC Transactions

<0.3 %
Bad Debt Rate

0.18 %
Manual Review Rate

37B cm²
Paper Tickets Saved = **12,372** Taipei 101

1,000+ Million liters
Gasoline Saved = **439** Olympic Swimming Pool

2.5M tons
Carbon Emission Reduced = **6,953** Central Park

15 min
Travel Time Reduced/ Per Day in Average = **42.8** Years

Harmonizing an AITS World - Taipei

Taipei AITS Vision & Goal

ITS SUWON AP FORUM
2025 수원 ITS 아태총회

H A R M O N Y

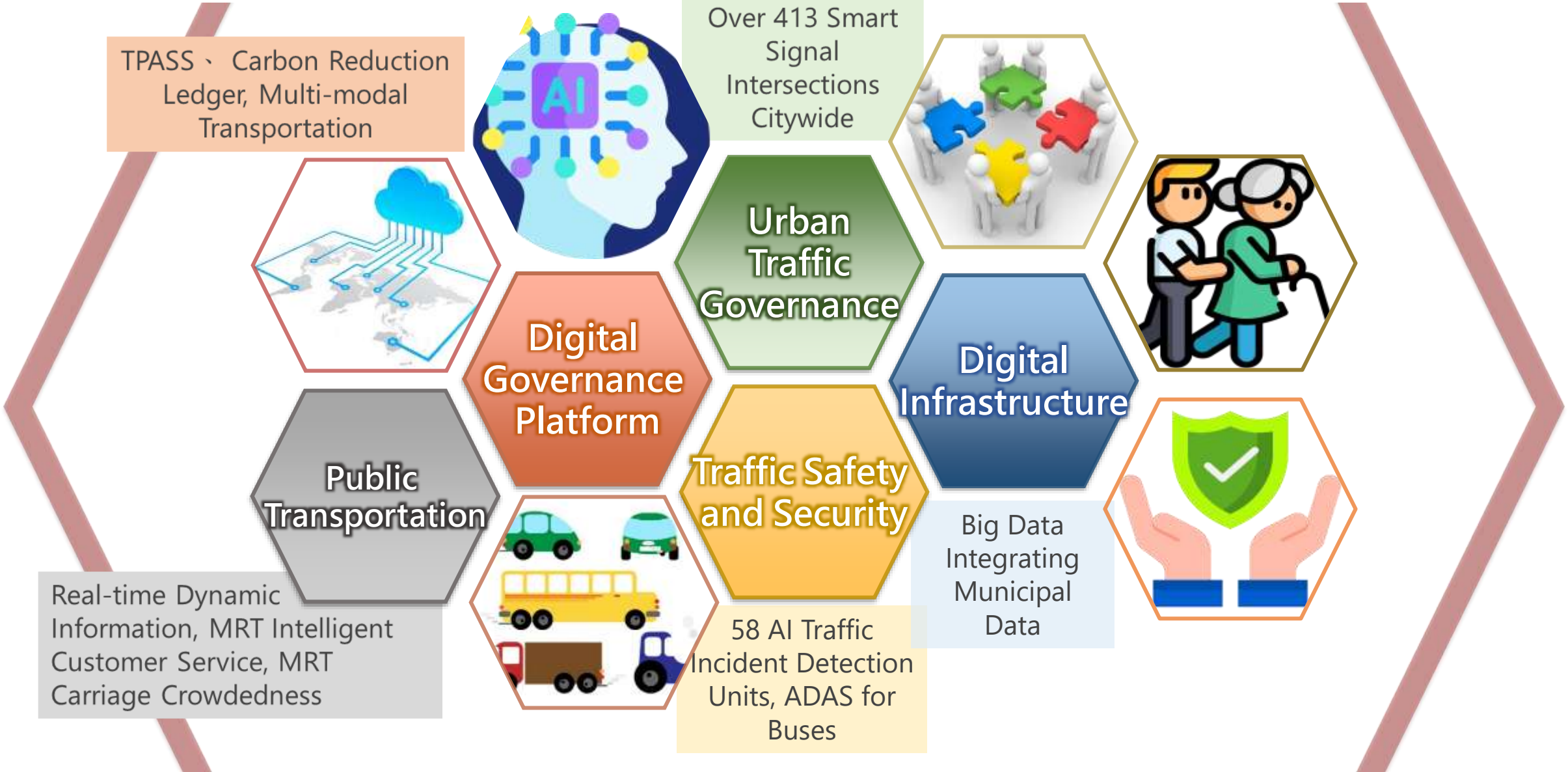
Human-centered	AI-driven	Resilient	Mobility	Optimized	Networked	Yielding Sustainability
以人為本	AI驅動	系統韌性	移動便利	系統最佳	路網無縫	永續發展

AI-driven, Smart Transportation, Harmonious City

T A I P E I

Transformative	Accessible	Inclusive	Pioneering	Eco-friendly	Integrative
技術轉型	民眾有感	族群包容	構想開創	環境友善	資源整合

Current Status of AI and ITS Development in Taipei



A Hollistic Approach

Digital Governance Platform

To integrate, manage, and utilize various resources to support the rapid development, implementation, and decision-making of various applications.

Traffic Management

Utilizing data platforms for dynamic and AI traffic management to enhance system resilience

Traffic Safety and Security

Using AI and big data predictions as an event warning system service to enhance safety management and ensure low-risk operations

Public Transportation

Establishing people-centered and diverse smart transportation services to promote inclusiveness and convenience

Digital Infrastructure

Establishing a resilient and inclusive digital infrastructure to support AI+ITS applications, providing a solid foundation and real-time data support for smart transportation.

Digital Infrastructure

Support the development of "Taipei AI+ITS Digital Application" with AITS@TPE digital foundation to provide services for the public

Digital Infra

- Code
- Data
- Computing power

Codeshare platform

- Develop AI+ITS public code to improve resource sharing and efficiency in intelligent transportation systems.

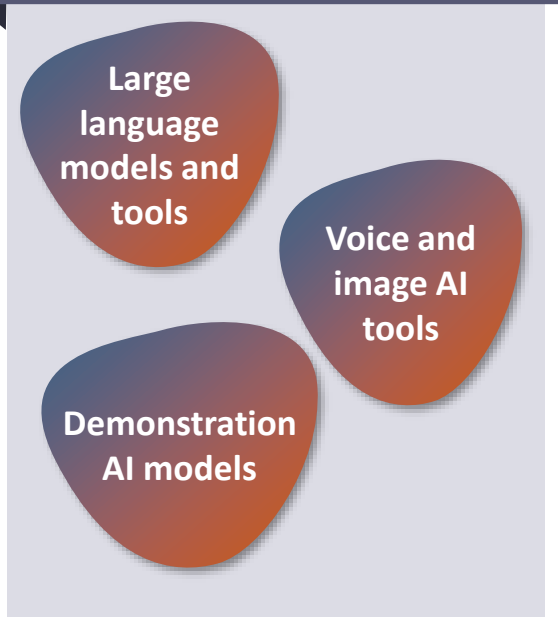
Data sharing platform

- Develop a trusted data sharing platform to ensure data quality, security, and privacy compliance.

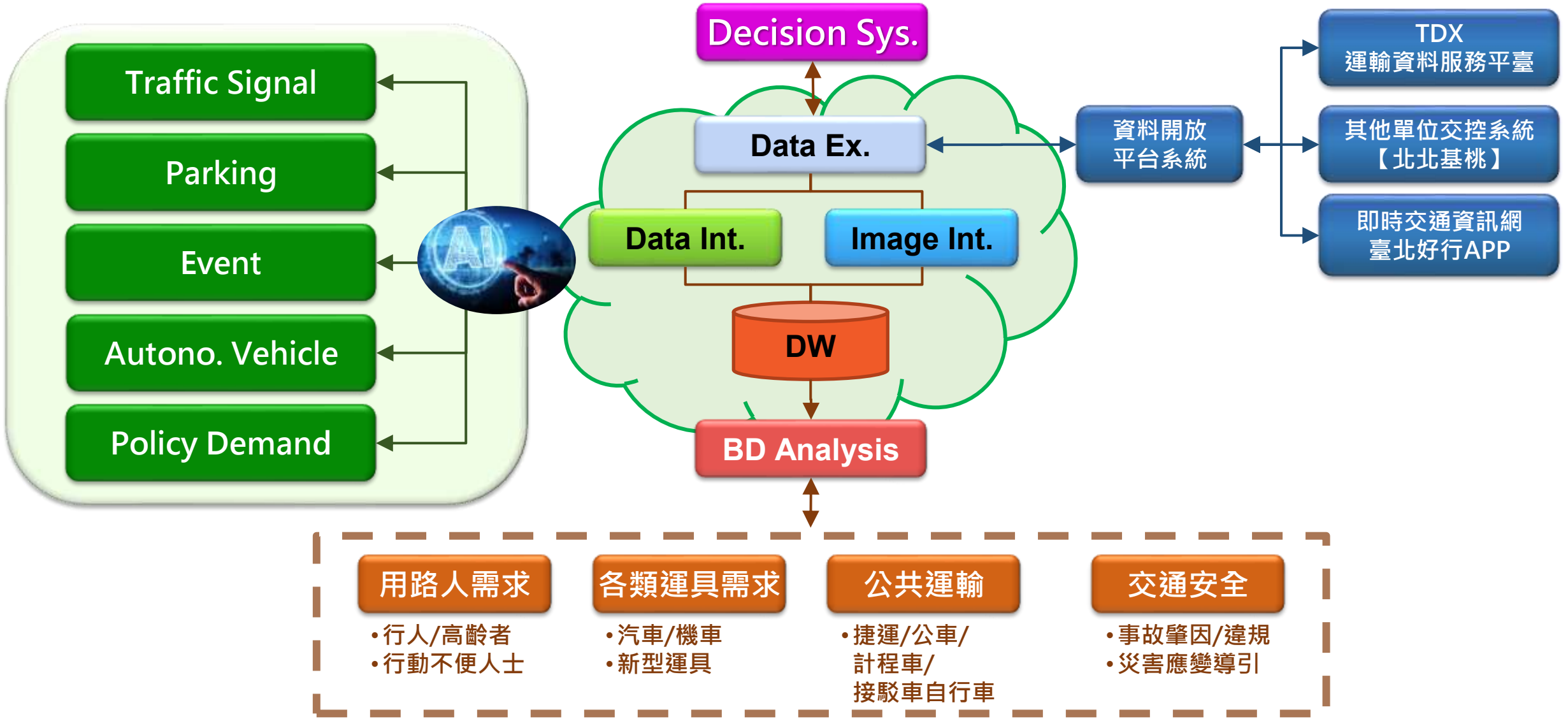
Computing power platform

- Build an AI computing platform with shared resources to support AI training, modeling, and inference for innovative applications.

A common tool for AI demonstration with code



Traffic Management



Traffic Safety and Security

Functions

1 Prevention
- ☑AI 影像辨識
- ☑駕駛行為分析
- ☑事故預測性分析

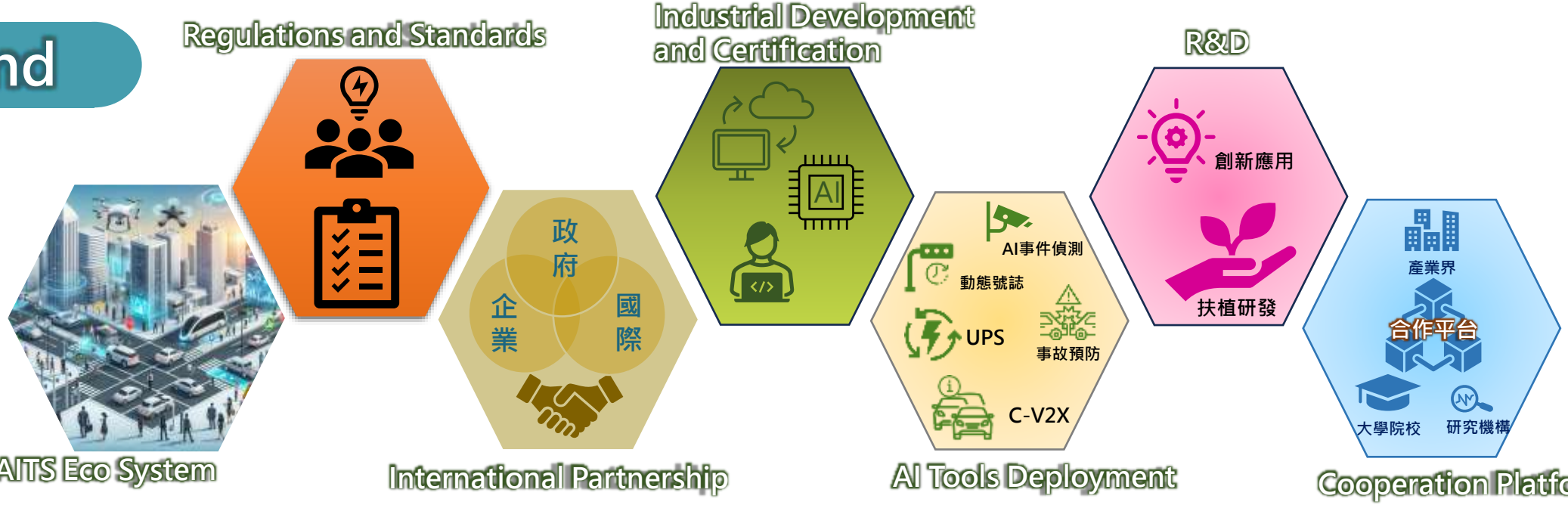
2 Law Enforcement
- ☑智慧號誌控制
- ☑車牌辨識與違規監測
- ☑無人機巡邏與監測

3 Emergency Mgmt
- ☑AI 交通事件/事故偵測
- ☑自動通報緊急應變
- ☑智慧救護路徑規劃與綠色通行

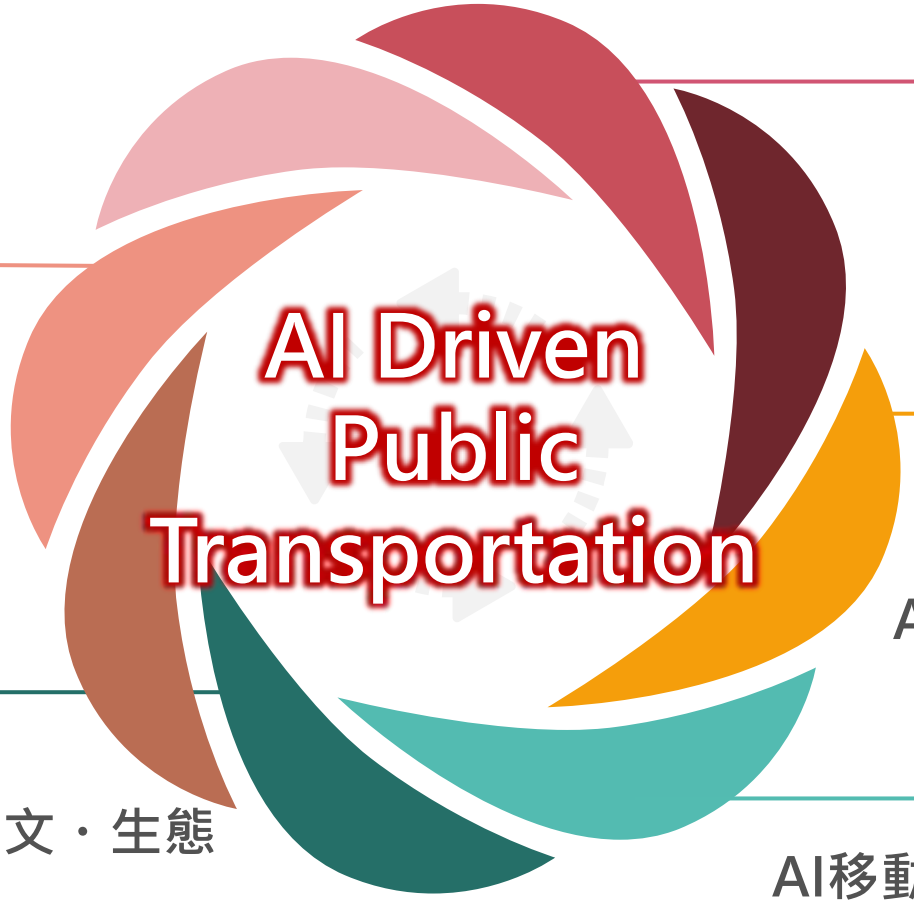
4 Network Security
- ☑V2X 資訊安全機制防護
- ☑AI 網路異常偵測
- ☑數據加密

5 Others
- ☑弱勢用路人防護
- ☑V2X 即時預警與防護強化交通安全
- ☑建立交通事故與安全預警分析平台

Demand



Public Transporation



Rail

高鐵｜臺鐵｜捷運

AI智慧車站助理

Aviation

松山機場

AI Sky秘書

Road

市區・公路・國道客運｜計程車

AI智慧車長・自駕公車

AI移動站牌 ・ AI包車小幫手

Waterway

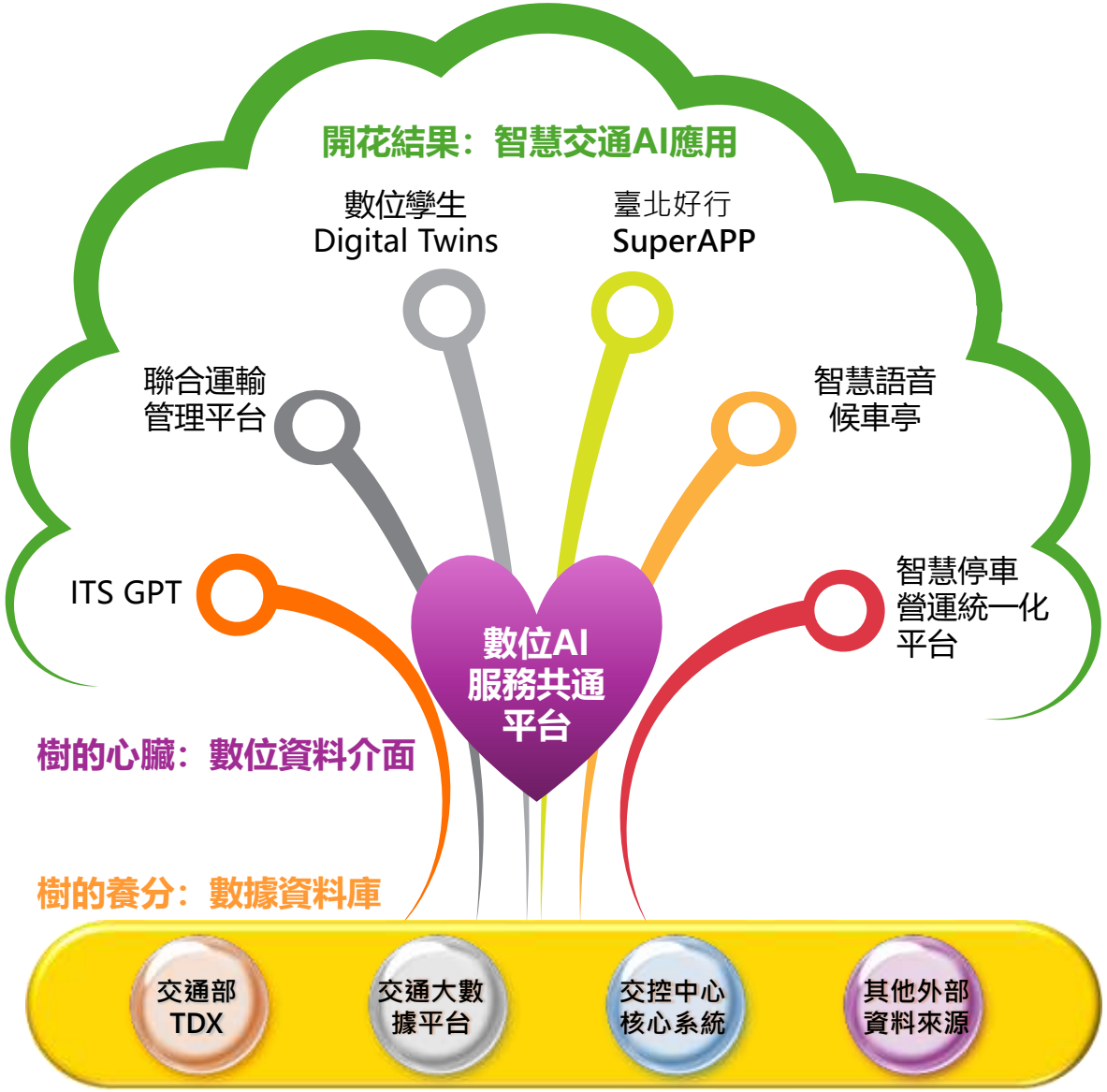
藍色公路-淡水河｜渡輪-河口・海口

AI城市導覽員-歷史・地理 ・人文・生態

Inter Modes

AI移動客服中心・AI City Walker

Digital Governance Platform



Welcome to 2029 ITS World Congress Taipei, where ICT meets ITS in reality

ITS SUWON AP FORUM

See you in Taipei

TAIPEI 2029
ITS WORLD CONGRESS