Transforming a City to Become Smarter: Where to start?

Experiences from Penang, Malaysia

Where did the smart journey start?

PENANG 2030

A Family-focused Green and Smart State that Inspires the Nation

- LIVEABILITY
- ECONOMY
- PEOPLE
- BUILT ENVIRONMENT
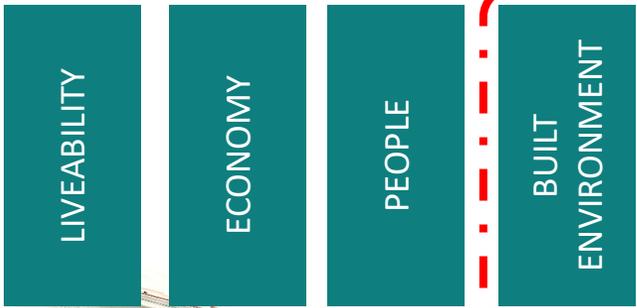
Innovation district focused on digital and creative industries at Digital Penang office along Gat Lebuh China.

AGENDA NEGERI PINTAR PULAU PINANG

- SMART COMMUNITY
- SMART ENVIRONMENT
- SMART MOBILITY
- SMART ECONOMY
- SMART GOVERMENT

- Security
- Green & Sustainable
- Traffic
- Livable City

- Financial & Economy
- Digital Infrastructure
- Public Empowerment
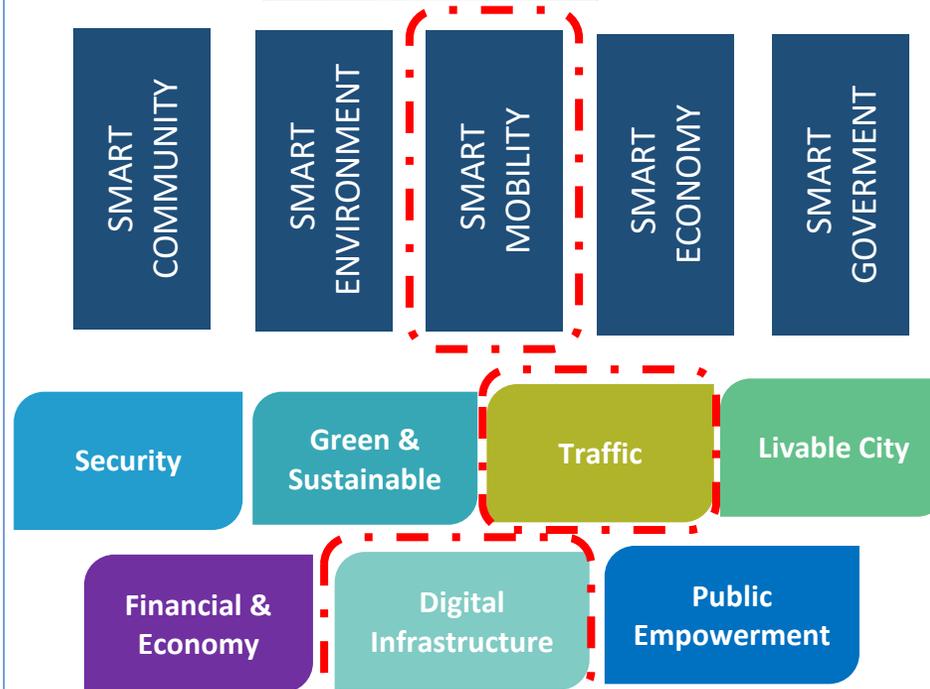
Digital Penang

About

Digital Penang is established to enable and orchestrate Penang State digital strategy to capture opportunities in the new economy and upgrade liveability.

DTMP

It encompasses several sub-plans that outlines Digitalisation ambitions and goals towards a connected, creative and competitive society.

- GOVERNANCE
- COMMUNITY
- ECONOMY
- INFRASTRUCTURE

Why did Penang want to become smarter?

1 George Town is a UNESCO Heritage Site but it very much a car-oriented city which affects the overall quality of the historical site.

2 Much of the road and public space is reserved for parking which makes walking and cycling impractical and unsafe.

3 Low frequency and unreliable service, taking the bus in George Town is not a positive experience.

# Why Penang implement the smart solution?

1 Provide Majlis Bandaraya Pulau Pinang (MBPP) with an efficient tool to check and assess the implications of developer plans and thus improve the implementation and enforcement of transportation policies.

2 Trial the implication of different transportation policies and designs such (parking, e-buses, micro-mobility, car-free space, etc).

3 Better communicate implications of transport policies and solutions to decision makers, developers and to the public.
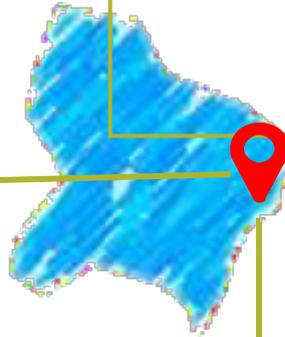
Peninsula Malaysia
(Semenanjung Malaysia)

Digital Penang

How Penang deployed smart solution?

Policy and Planning

Traffic Impact Assessment

Simulation Model

Live data feed and Historical data

Data Sources

Intervention Scenarios

- Adding 2 pedestrian crossings
- Adding 1 way street
- Adding type of pedestrian walk expansion
- Adding Bus Lane
- Simulating traffic impact by development of office building block

Training

- Certified training provided to Local Council

Example of smart solution (traffic modelling) implemented in Penang

Pedestrian and Cyclist Priority

- Assessing the pedestrian walkway and ideal pedestrian crossing placement.
- Assessing impact of introduction of cyclist priority to existing traffic.

Traffic Improvements

- Assessing impact of removal parking and adding demand for commercial activities.
- Assessing impact for one-way traffic to existing traffic.

How Penang delivering the smart solution?

Digital Penang Role	Majlis Bandaraya Pulau Pinang Role
• Digital Penang connects external stakeholders to bring in technology and support internal agencies with their digitalisation journey.	• MBPP's Engineering Department acts as subject matter expert for traffic policy/regulations and implementation.

Key takeaways:

1 Reports at each stage of the project shall validated by MBPP's Engineering Department in terms of the technical, policies, changing the traffic flow, repositioning CCTV, etc.

2 Digital Penang shall present the validated report to Penang State Cabinet for their acknowledgement and endorsement.

Thank You