SMART CITY INITIATIVES

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SMART CITY - INTRODUCTION

- The European Union (EU);'Europe's Digital Agenda' strategies
- 21 smart cities and projected to increase to 88 by 2025. 32 will be in Asia Pacific, 31 in Europe and 25 in Americas.
- Smart Cities around the world : Nice, Amsterdam, Barcelona, Kyoto, Beijing, Singapore, Seoul, Songdo, San Francisco and Stockholm.
- Greater Kuala Lumpur (KL), Iskandar Malaysia, Smart Selangor and Putrajaya Smart City.

Why Smart City Initiatives in Malaysia?

A new idea and new mode of promoting smart city planning, construction, management and services. Using the internet of things, cloud computing, big data and spatial geographic information integration

New trend of development?

Is it to promote industrialization? Informatization? Urbanization?
How or the level of between IT companies and Government?
Rapid urbanization? Led to rapid expansion of urban population and the development of cities is restrained by environmental pollution and shortage of resources ie. Land, space, energy and clean water?
Is difficult to solve using traditional techniques and management method.
Study how to use innovative information technology, knowledge and intelligence technology in the development of modern cities

GOAL

- **TO DEVELOP AN OVERALL FRAMEWORK (BLUEPRINT) FOR SMART CITIES DEVELOPMENT IN MALAYSIA**

- **AS REFERENCES TO ALL IMPLEMENTING AGENCIES AND STAKEHOLDERS TO GUIDE AND TO ENSURE A SYSTEMATIC IMPLEMENTATION OF SMART CITY DEVELOPMENT IN MALAYSIA**

OBJECTIVES

- **TO TRANSLATE AND DEFINE THE MAIN CONCEPT OF SMART CITY RELATED TO SMART LIVING, SMART GOVERNANCE, SMART ECONOMY, SMART ENVIRONMENT, SMART PEOPLE AND SMART MOBILITY**

- **TO ESTABLISH POLICIES, STRATEGIES AND ACTION PLAN BASE ON URBAN CATEGORIES WITH REFERENCE TO THE NATIONAL URBANIZATION POLICY**

- **TO FORMULATE THE MPLEMENTATION AND MONITORING MECHANISM ON SMART CITY DEVELOPMENT**

CITY PLANNING
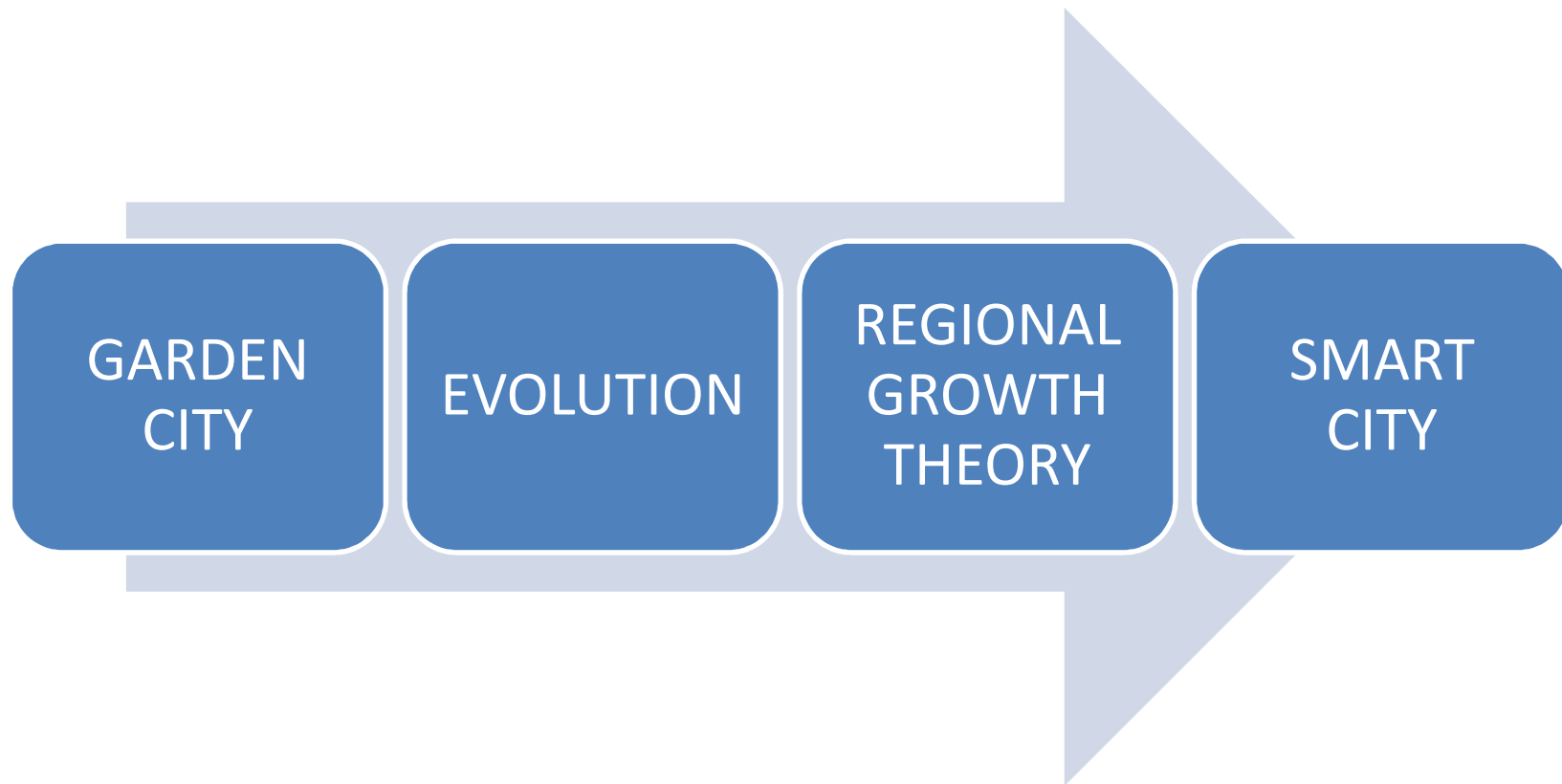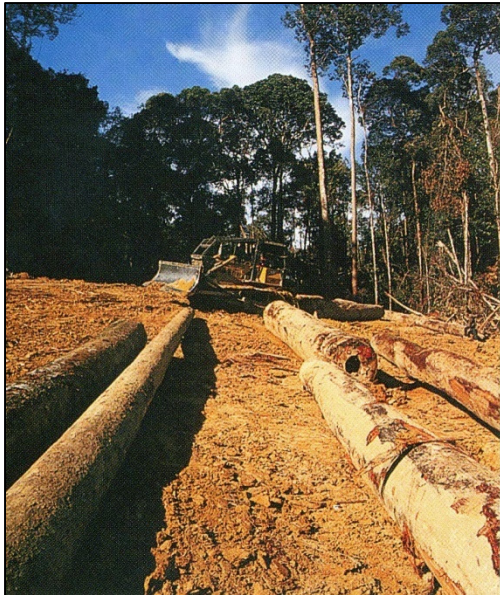
THE FAST RATE OF URBANIZATION

Traffic congestion

Overcrowding;

Shortage of affordable housing;

Environmental degradation;

Flash floods, waste disposal;

Stress-related diseases

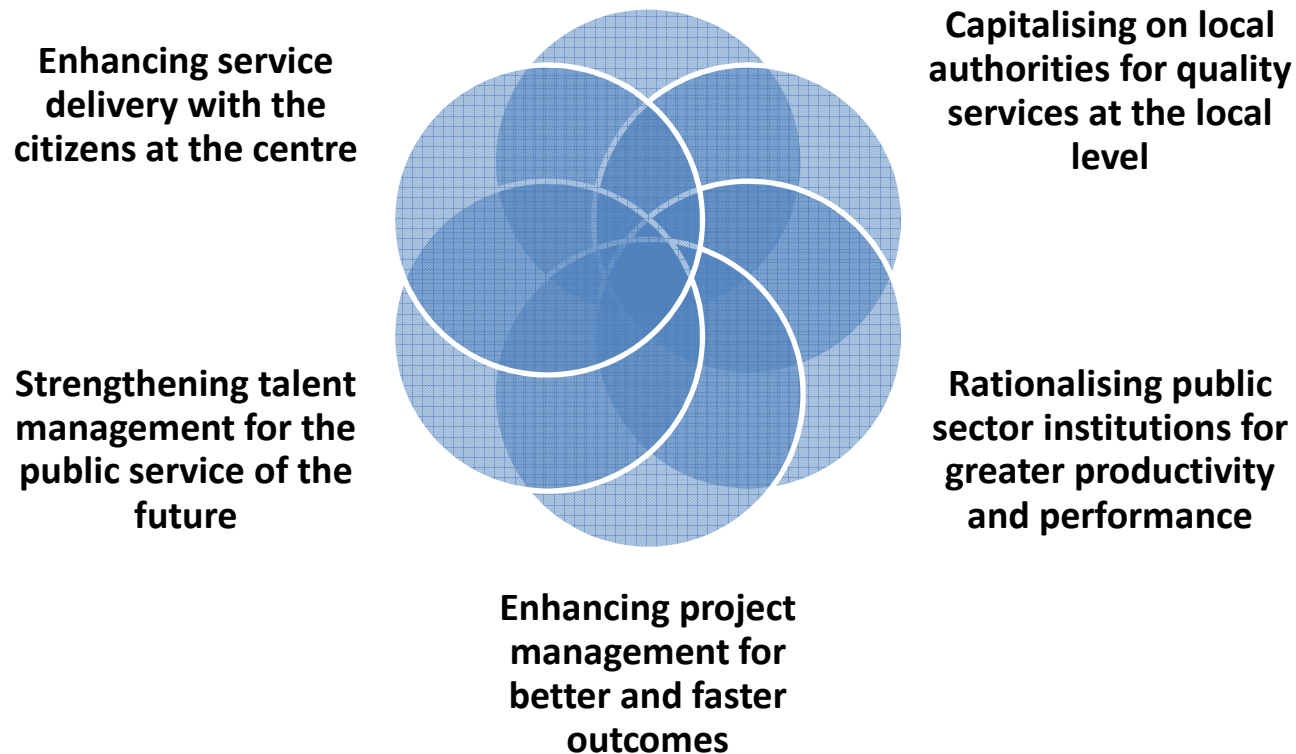**FLOODING AND LANDSLIDES**

NEW TECHNOLOGIES

Emergence of more dispersed cities

Aterial highways, interstate highways – tied metropolitan and entire nation together

Spurred growth in less developed regions

Allow large scale urban development to spread
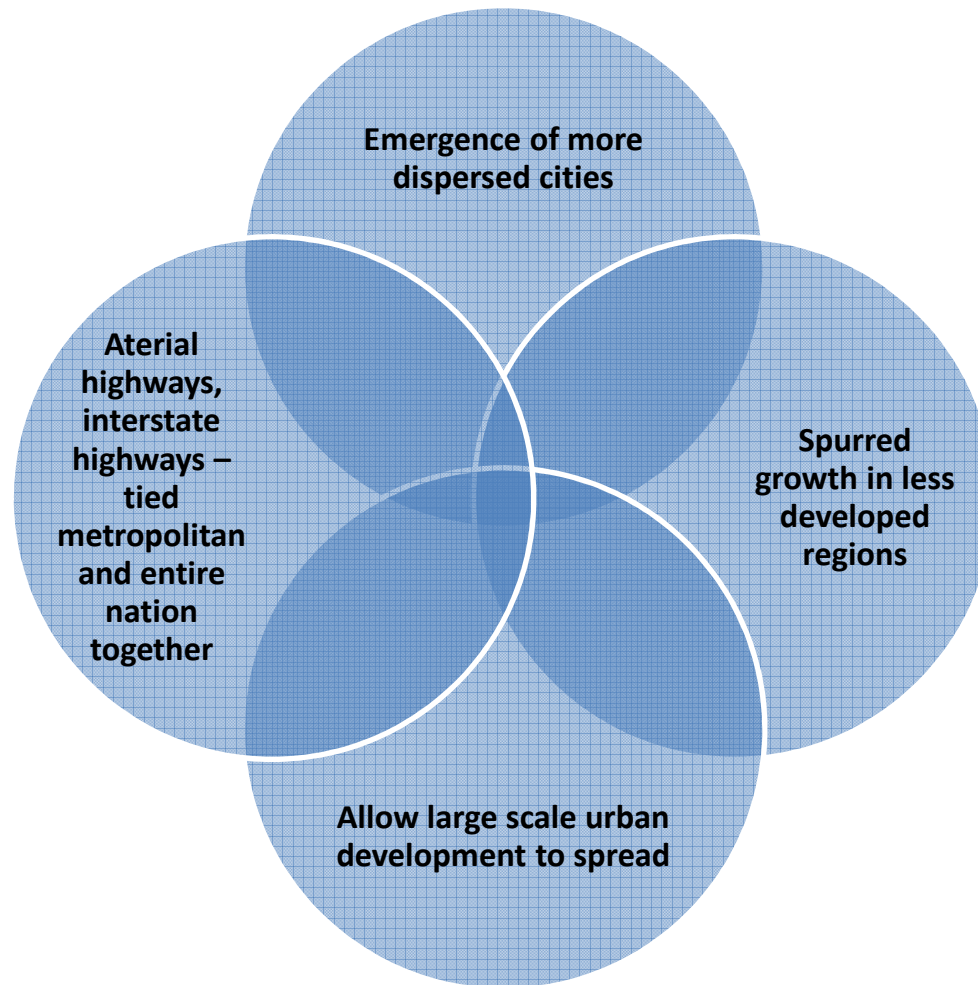
11TH MALAYSIA PLAN, 2016-2020

**5 FOCUS AREA TRANSFOR PUBLIC SERVICE TO
BE MORE EFFICIENT AND PRODUCTIVE**

**Enhancing service
delivery with the
citizens at the centre**

**Capitalising on local
authorities for quality
services at the local
level**

**Strengthening talent
management for the
public service of the
future**

**Rationalising public
sector institutions for
greater productivity
and performance**

**Enhancing project
management for
better and faster
outcomes**

source : MAMPU

DIGITAL GOVERNANCE AND SMART CITIES

- **11TH MALAYSIA PLAN AND SMART CITIES**

- More Malaysians live in urban areas, cities are starting to face pain points such as congestion, pollution, and inefficient deployment of urban services. Smart Cities is a next generation approach or future city approach to urban management with solutions that address these issues and improve the quality of life of urban dwellers.

DIGITAL GOVERNANCE

Digital or e-government refers to primarily on providing information and online transaction kinds of services to citizens in a state by the government
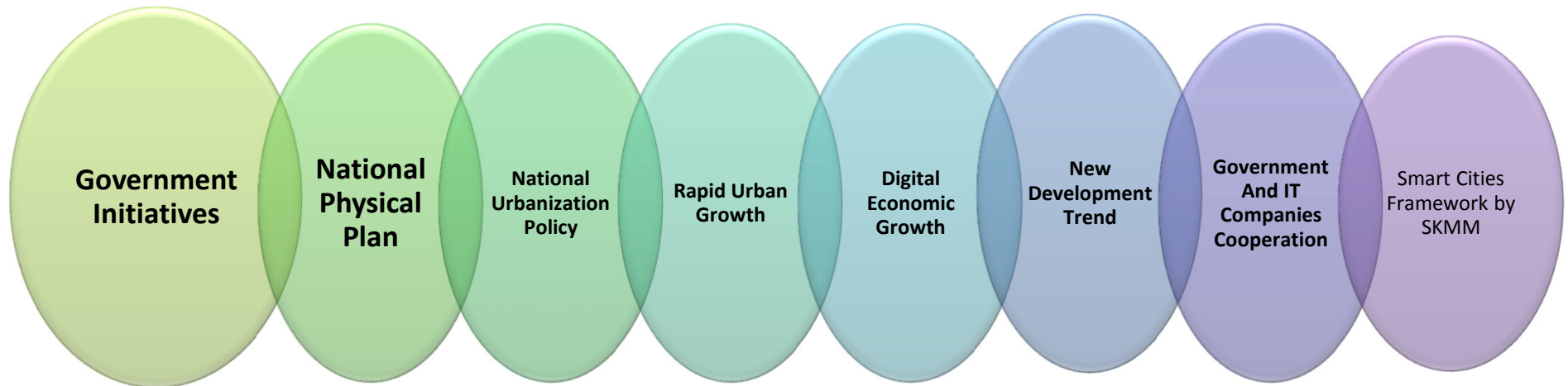
Digital Governance is broadly defined as an application of information technology to the functioning of the government to enhance the delivery of public services to the citizens and other individual and organizational consumers of the government services
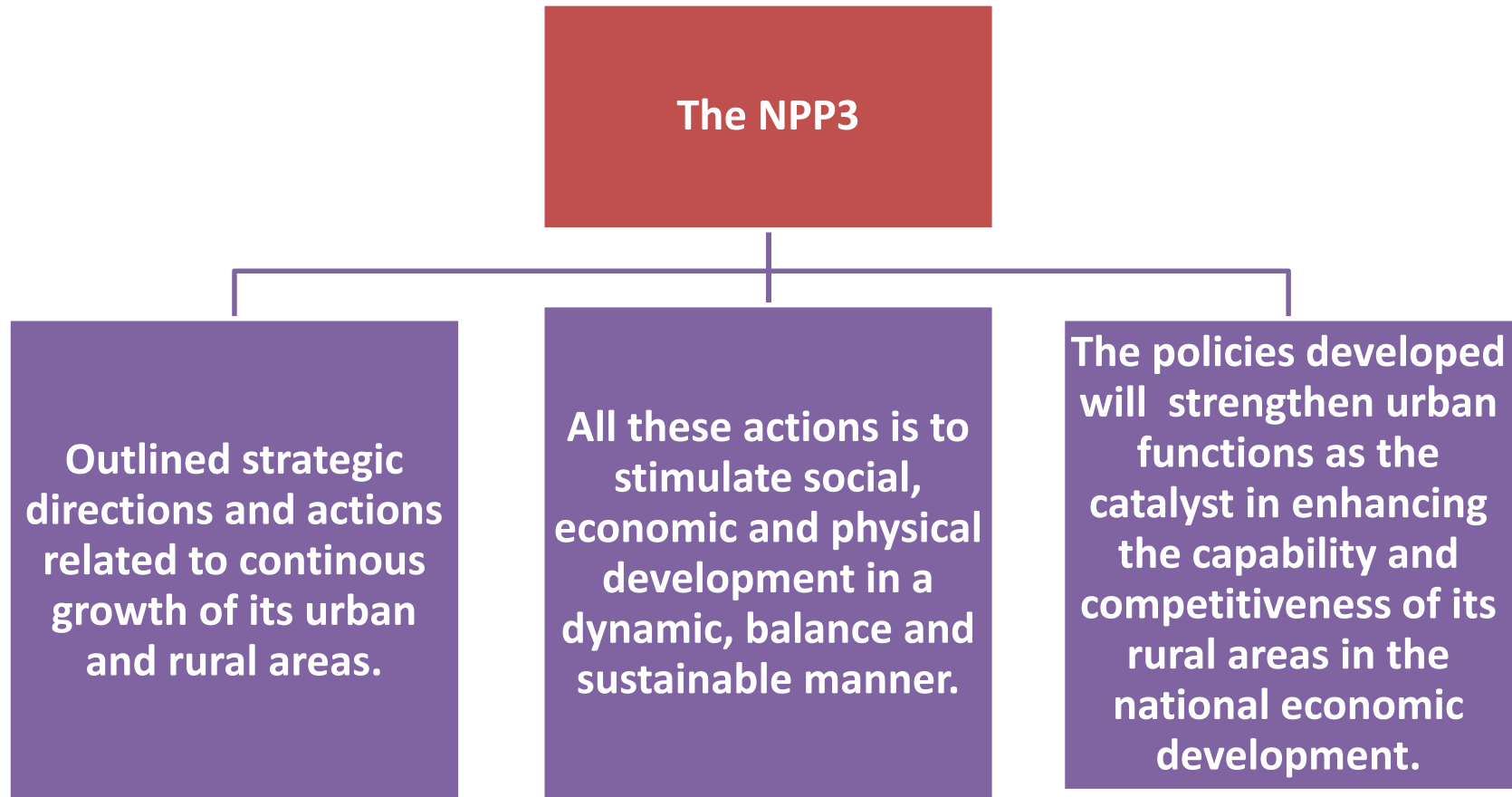
INFORMATION TECHNOLOGY

ICT can influence governance processes in 3 ways:

- **Technical role**: Automation of repetitive governance tasks and thereby improving efficiency of governance processes. For instance, automated filing of tax forms, e-voting, periodic information reporting etc.

- **Supportive role**: Use of ICT to complement existing efforts and processes to improve governance. For instance, use of Internet to catalyse existing efforts towards transparency in government information and functioning, or embedding use of emails in connecting decision-makers with their constituencies.

- **Innovative role**: Use of ICT to initiate new governance services or new mechanisms for improved service delivery which would be impossible through non-ICT modes. For instance, online checking of status of an application (from remote and beyond office hours); providing instant access to the same information to all individuals through emails and website; ability to instantly access, compare or triangulate information from outside of the constituency or government sources etc.

SMART CITIES IN MALAYSIA

Government Initiatives

National Physical Plan

National Urbanization Policy

Rapid Urban Growth

Digital Economic Growth

New Development Trend

Government And IT Companies Cooperation

Smart Cities Framework by SKMM

SMART CITY – NATIONAL PHYSICAL PLAN 3

The NPP3

Outlined strategic directions and actions related to continous growth of its urban and rural areas.

All these actions is to stimulate social, economic and physical development in a dynamic, balance and sustainable manner.

The policies developed will strengthen urban functions as the catalyst in enhancing the capability and competitiveness of its rural areas in the national economic development.

SMART CITY – NATIONAL PHYSICAL PLAN 3

Smart Cities Initiatives is also part of the so called actions of NPP3 which has recommended:

- To expand and enhance Digital Infrastructure

- To strengthen and expand broadband coverage

- To strengthen the provision of infrastructure facilities and services for smart cities initiatives

SMART CITY – NATIONAL URBANIZATION POLICY

The National Urbanization Policy goals is to drive and coordinate sustainable urban development planning that emphasized on a balanced physical, environment, social and economic development in Malaysia.

4 PRINCIPLES

- good urban governance,
- liveable city,
- competitive urban economy
- an inclusive and equitable urban development.

SMART CITY – NATIONAL URBANIZATION POLICY

The NUP has recognize the smart city initiatives through its 3rd Principles ;

- To generate a competitive urban economy,
- Strengthening digital application by improving the readiness of its urban services through digital applications
- Encourage digital application through information dissemination and hands on training.

The NUP has also outlined the need to have an effective and efficient communication system in ensuring SC implementation through the provision of high speed broadband in urban areas comprehensively and competitively.

SPATIAL DATA AND SMART CITIES ARE INTERDEPENDENT

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i-plan
SEMENANJUNG MALAYSIA

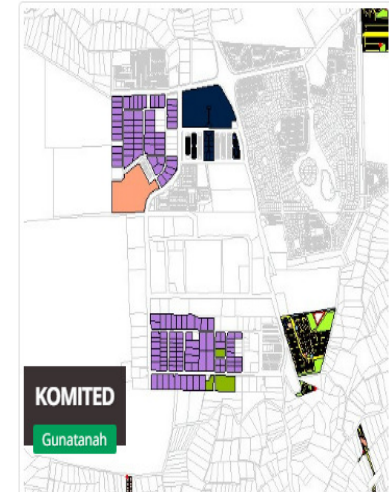Pilih Bahasa ▼   📖 User Manual   Search News... 🔍

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WELCOME

INTEGRATED LANDUSE PLANNING INFORMATION SYSTEM (I-PLAN)

SEMASA
Gunatanah

ZONING
Gunatanah

KOMITED
Gunatanah
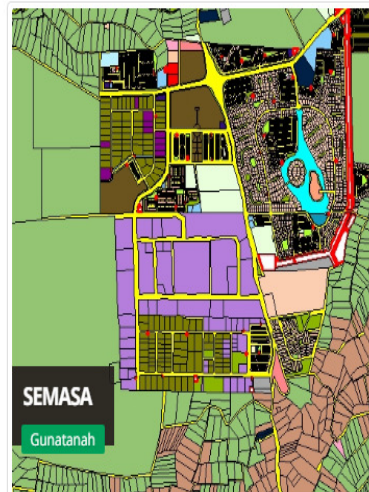
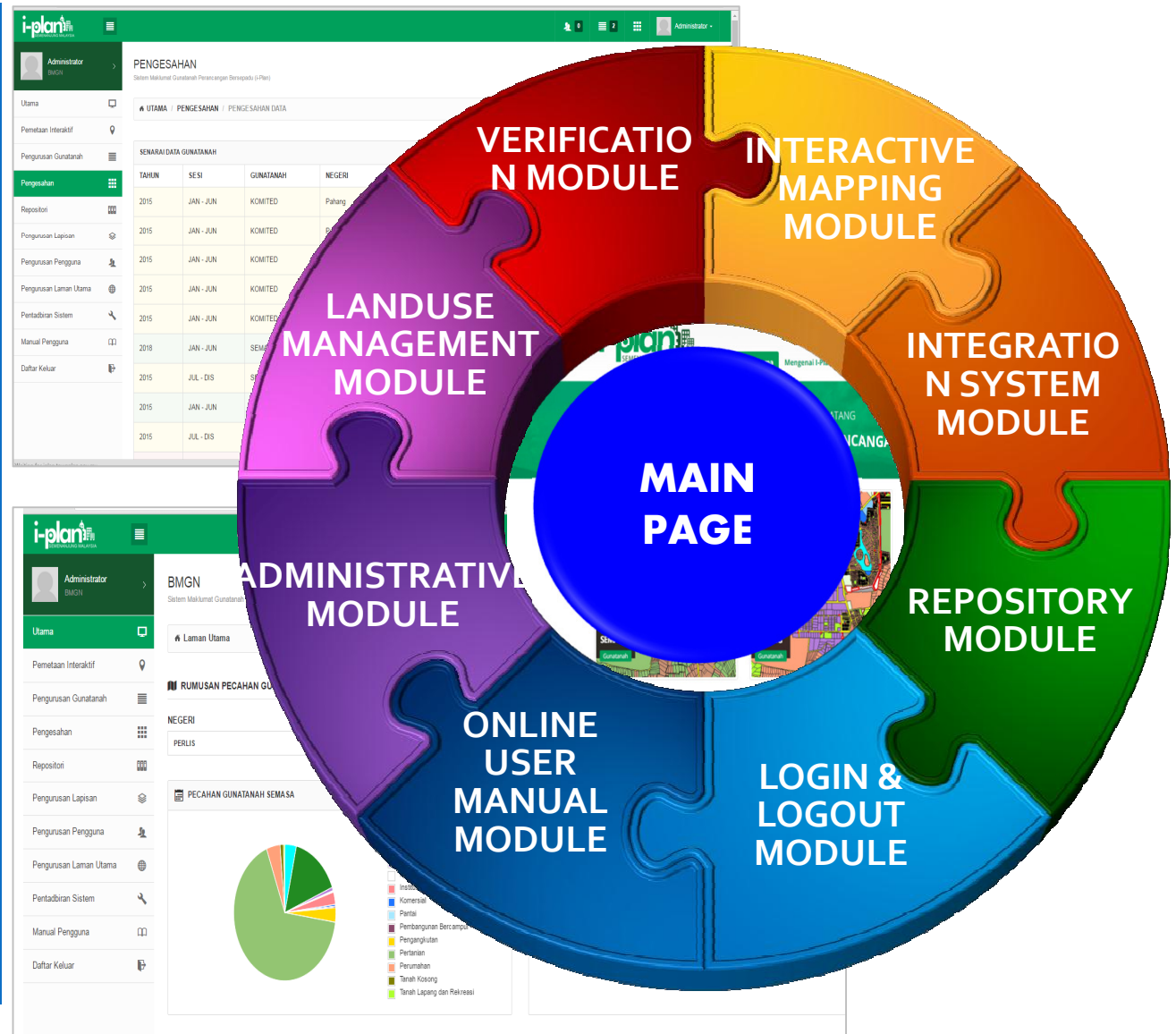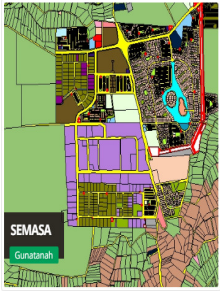🏠 Main   ☰ News   📊 Landuse Statistic

Integrated Landuse Planning Information System (i-Plan) an online web application that enables you to make geospatial reference information related to land use planning in Peninsular Malaysia. Through the I-Plan, you can view and access information and check the current land use zoning of land use that have been established by the Local Plan for the area.

For more information or questions relating to **I-Plan**, email us at iplan@townplan.gov.my
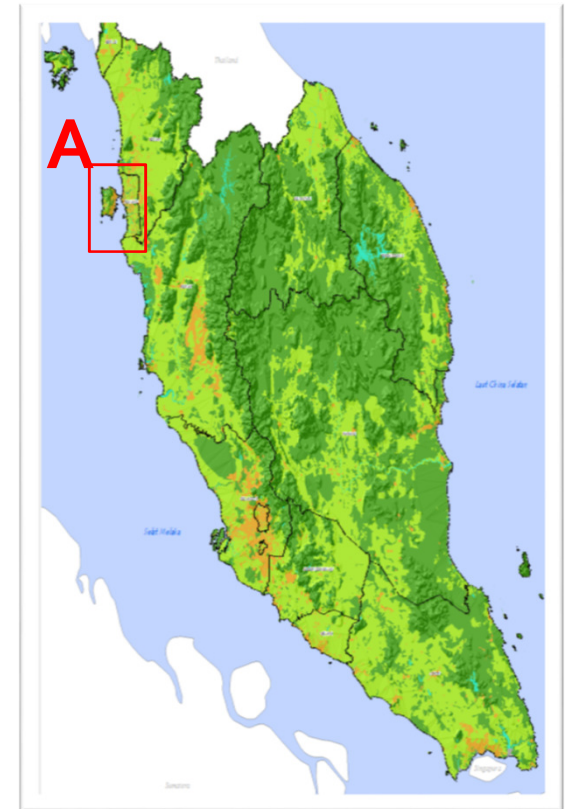
APPLICATION

MAIN PAGE

VERIFICATION MODULE

INTERACTIVE MAPPING MODULE

INTEGRATION SYSTEM MODULE

REPOSITORY MODULE

LOGIN & LOGOUT MODULE

ONLINE USER MANUAL MODULE

ADMINISTRATIVE MODULE

LANDUSE MANAGEMENT MODULE

EXISTING
LANDUSE
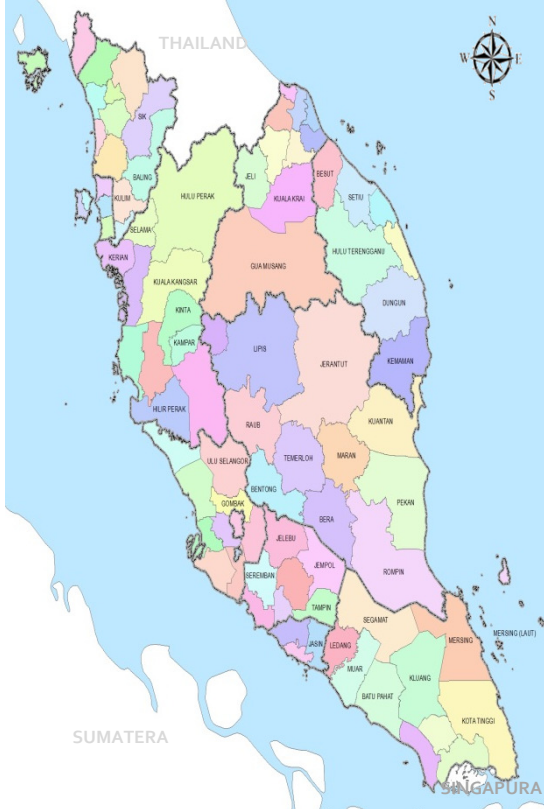
- 11 State
- 101 Local Authorities
- 88 District + 2 Federal Territories

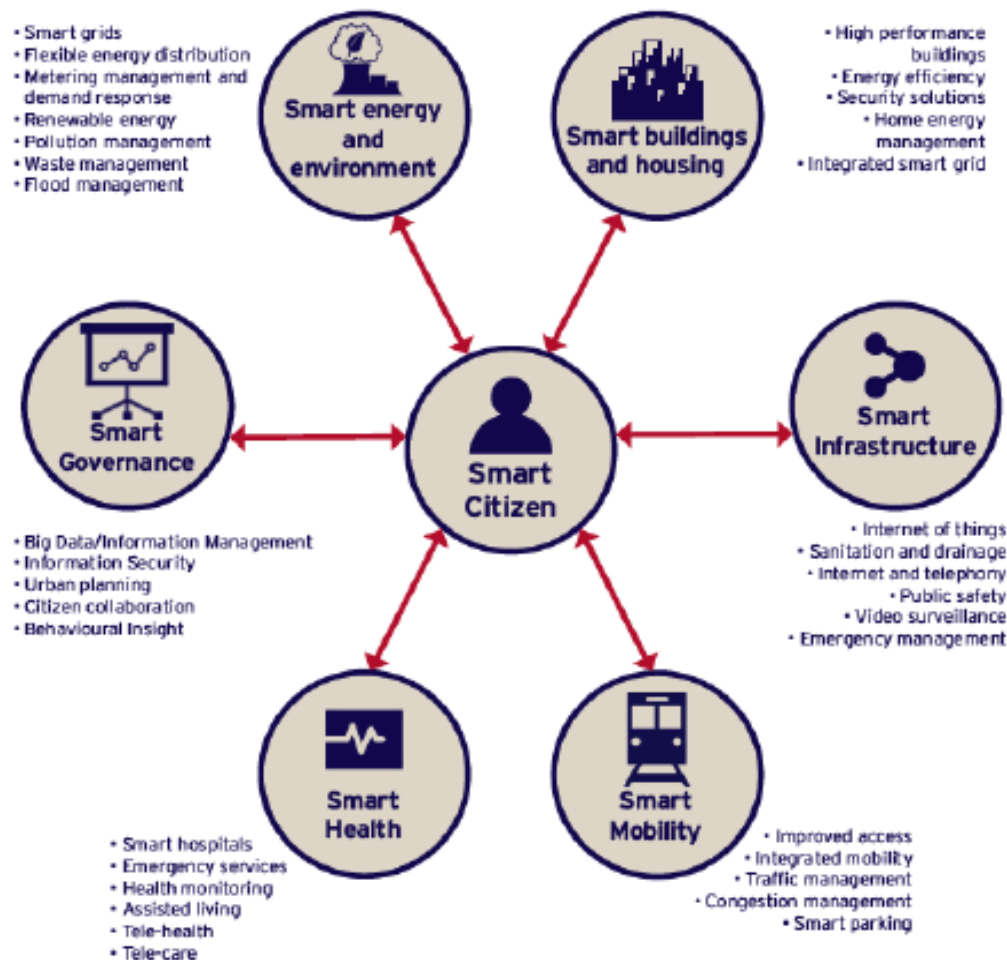A

STATE OF PULAU PINANG

KEDAH

PERAK

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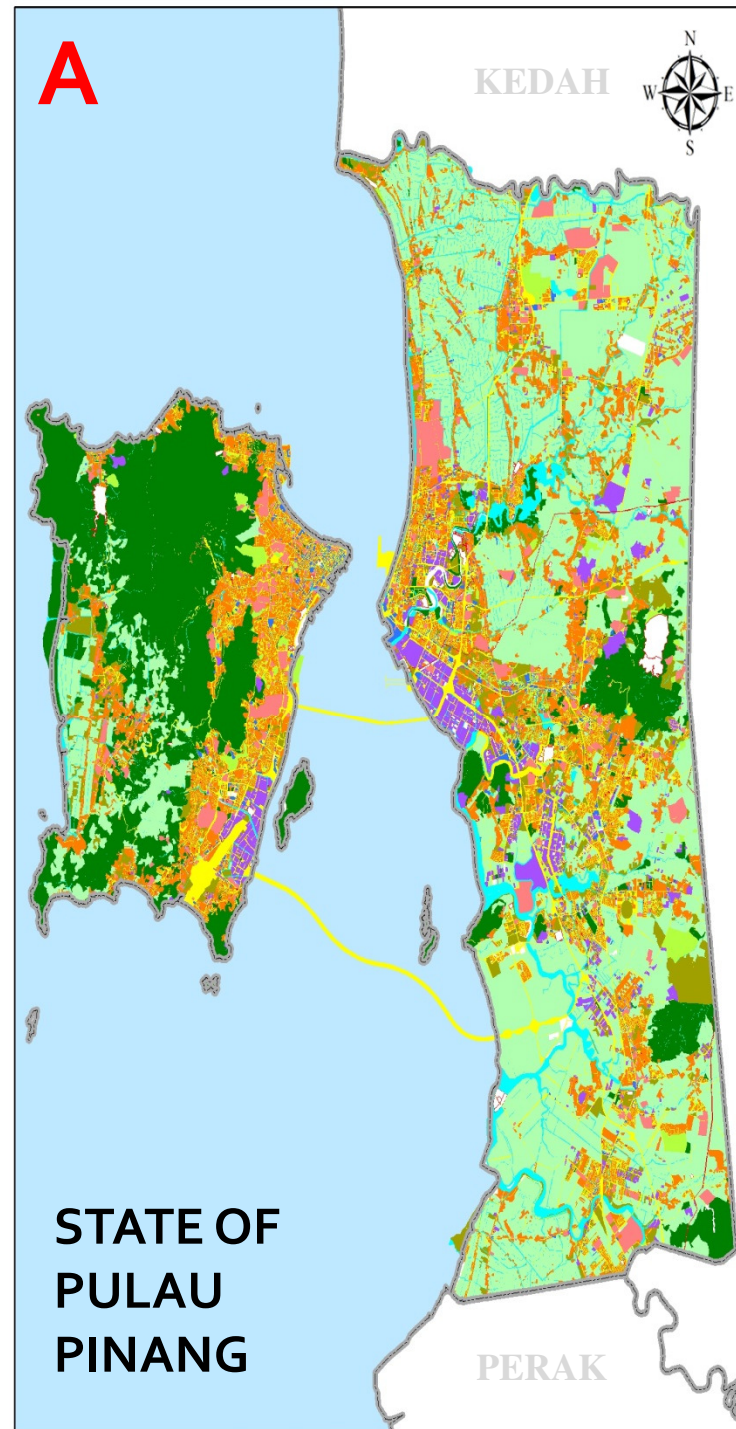
Land use

- Residential
- Commercial
- Industry
- Institution and Public Amenity
- Infrastructure and Utility
- Vacant Land
- Open Space and Recreation
- Transportation
- Livestock and Aquaculture
- Agriculture
- Forest
- Waterbody

Four factors on the definition of a smart city

- The application of a wide range of electronic and digital technologies to communities and cities
- The use of ICT to transform life and working environments within the region
- The embedding of such ICTs in government systems
- The territorialisation of practices that brings ICTs and people together to enhance the innovation and knowledge that they offer.

How will Smart Cities be delivered?

Cities are real-time systems, and a Smart City is made up of several smart systems. An intelligent city will have smart physical, social, institutional and economic infrastructure in a sustainable environment, with its citizens at the centre of these systems.

- Smart grids
- Flexible energy distribution
- Metering management and demand response
- Renewable energy
- Pollution management
- Waste management
- Flood management

Smart energy and environment

Smart buildings and housing

- High performance buildings
- Energy efficiency
- Security solutions
- Home energy management
- Integrated smart grid

Smart Governance

Smart Citizen

Smart Infrastructure

- Big Data/Information Management
- Information Security
- Urban planning
- Citizen collaboration
- Behavioural Insight

- Internet of things
- Sanitation and drainage
- Internet and telephony
- Public safety
- Video surveillance
- Emergency management

Smart Health

Smart Mobility

- Smart hospitals
- Emergency services
- Health monitoring
- Assisted living
- Tele-health
- Tele-care

- Improved access
- Integrated mobility
- Traffic management
- Congestion management
- Smart parking

Deakin

Deakin defines the smart city as one that utilises ICT to meet the demands of the market (the citizens of the city), and that community involvement in the process is necessary for a smart city. A smart city would thus be a city that not only possesses ICT technology in particular areas, but has also implemented this technology in a manner that positively impacts the local community.

Frost & Sullivan 2014:

"We identified eight key aspects that define a Smart City: smart governance, smart energy, smart building, smart mobility, smart infrastructure, smart technology, smart healthcare and smart citizen.

Institute of Electrical and Electronics Engineers Smart Cities:

a smart city brings together technology, government and society to enable the following characteristics:

SMART CITIES, A SMART ECONOMY, SMART MOBILITY, A SMART ENVIRONMENT, SMART PEOPLE, SMART LIVING, SMART GOVERNANCE

SMART CITY FUNCTIONS

Dimensions	Function/Aspects
Smart Governance	To improves the government services to people. Aspects: • Public participation • Efficient public and social services • Private public partnership • Transparent governance
Smart Mobility	To Increase the efficiency of public transportation, accessibility, mobility of people and traffic management through intelligent traffic management in the city. Aspects: • Efficient road accessibility • Efficient public transportation • Non motorized accessibility • Availability of ICT infrastructure

Smart People	To Improves the urban people way of life, high human capital, (knowledge workers), high human development index, people highly flexible and resilient to the changing circumstances. Aspects: • Caring community • High Human Development Index • Skilled and talented human capital • Racial harmony
Smart Environment	To create a sustainable environment through reduce greenhouse emission, low-carbon lifestyle with focus on energy efficiency, renewable energy and green technology. Aspects: • Clean environment • Environmental protection • Green development • Green infrastructure • Smart growth • Green economy

Smart Economy	To create a competitiveness, innovative and diverse economic opportunities to prepared for the challenges and opportunities of economic globalization. Aspects: • Economic growth and value creation • Innovative economic growth • Equitable wealth distribution • Entrepreneurship
Smart Living	To create a sustainable, vibrant and ideal place of living, especially for women, children, and senior citizens in the city. Aspects: • Safety and security • Low carbon lifestyle • Housing quality • Educational quality • Health conditions • Cultural facilities • Tourist/recreational attractiveness

ISSUES AND WAY FORWARD

a. Examine and develop the overall framework in the implementation of smart city initiatives

b. Define the role and concept of Smart City on 'smart living', 'smart governance', smart economy', 'smart environment', 'smart people' dan 'smart mobility',

c. Establish smart cities road map planning and programmes

d. Develop guidelines, policy measures and indicators regarding on Smart Cities development

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THANK YOU
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