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Iskandar Malaysia Smart City Blueprint & Realization

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Iskandar Malaysia Smart City Blueprint & Realization

- Comprehensive Development Plan
- Geo Spatial Initiatives
- Towards Becoming A Smart City
- Conclusion
Iskandar Malaysia Smart City
Blueprint & Realization

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Iskandar Malaysia is one of the top progressive economic regions in the country, with relatively high GDP per capita and committed investments.
Iskandar Malaysia is bestowed with strategic location and easy accessibility by land, air and sea.

**International & Regional Linkages**
- Iskandar Malaysia has the advantages to develop international linkages due to proximity & traditionally strong economic linkages with Singapore that help to boost international competitiveness and attaining international standing ecosystem.

**Assets of Iskandar Malaysia**
- Located along the busiest sea trade routes
- 2 world major port basins - Pearl River Delta & Straits of Malacca
- 6 to 8 hours air travelling time from Iskandar Malaysia to 3 world major economies – China, India & Japan
- Batam-Bintan-Karimun as Singapore’s extended economic zone

**ASEAN Economic Corridor**
- AEC features a single market – allows free movements of business persons, skilled labour, talents and free flow of capital that will ensure ASEAN as a competitive region that embrace equitable development.

**12 PRIORITY SECTORS FOR AEC REGIONAL INTEGRATION**
- Electronics
- E-ASEAN
- Healthcare
- Wood-based Products
- Automotive
- Rubber-based Products
- Textiles & Clothing
- Agro-based Products
- Fisheries
- Air Travel
- Tourism
- Logistics
A Snapshot of CDPii

1 Vision

Growth Ecosystem and Circle of Sustainability

Strategic Thrusts

11 WEALTH GENERATION

45 Key Directions

5 Big Moves

WEALTH SHARING & INCLUSIVENESS

113 Initiatives

16 Key Projects

RESOURCE OPTIMISATION & LOW CARBON

324 Programmes

A Snapshot of CDPii
Iskandar Malaysia Holistic Eco-system

A resilient ecosystem, anchored by wealth generators, creating regional wealth that is to be shared equally among communities. Wealth generation and wealth sharing, balanced by optimal use of ecological assets, would enhance the Quality of Life in Iskandar Malaysia, turning it into a leading global region. Alongside this, spatial management and good governance would enable the realization of its vision and goals by 2025.
Five (5) Big Moves to lead Iskandar Malaysia towards becoming a Sustainable Metropolis of International Standing

**Big Move 1**
Inclusive Iskandar Malaysia

Mainstream wealth sharing through spatial development to achieve a resilient and inclusive society in Iskandar Malaysia

**Big Move 2**
Greening Iskandar Malaysia

Transforming Iskandar Malaysia into a green and low carbon region through urbanscape and protection of ecology

**Big Move 3**
Destination Iskandar Malaysia

Leveraging on assets and resources of Iskandar Malaysia to create a fulfilling visiting experience that will further enhance the local tourism industry

**Big Move 4**
Port Iskandar Malaysia

Positioning Iskandar Malaysia as a world class dynamic logistics and maritime hub in ASEAN and Asia Pacific

**Big Move 5**
Iskandar Malaysia Urban Observatory

A ‘single window’ that shall seamlessly link people to information data and resources that shall enhance service transparency and position Iskandar Malaysia as a competitive global region
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GIS Big Picture Strategy & Approach

- Quick Win
  - Wish List
  - Collaboration
  - UPENJ Approved Roadmap

- GIS Masterplan
  - Free Offline and Online Software
  - Roadmap Concept

- Handshakes with Data Providers
- Free Data From Collaboration
- Free Application
- Purchased Data
- EPU Approved Road Map

- Integrated Land Use
- Electricity
- Shoreline Management
- etc

- Quality Statement
  - Enterprise Application
  - Governance
  - Reliable Information
  - Marketing & Investment Tool
  - Planning Tool
  - Processing Tool
  - Self Service
  - Web Mobile

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- Data Science
- Data Analytics
- Internal & External Data Collection
- Drone Mapping
- Data Science Tool
- Data Analytics Tool
- ESRI Urban Observatory

- GIS as enabler
  - Geolskandar
  - 1iskandar Map
  - Web-Based & Mobile Apps

- Urban Observatory
  - Data Science
  - Data Analytics

- 2007 - 2008
  - SJIC
  - PTG / JPBD

- 2009 - 2010
  - Collaboration / Updates

- 2011 - 2013
  - 2013 - 2016
  - 2016 - 2025

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**Iskandar Malaysia Geospatial & Geolskandar**

**Objectives**
- To provide reliable information via map base.
- To provide a platform of GIS ready for all the various departments in IRDA to use.
- To provide self-service application that allow user easy to get the information.
- To help organizational in decision-making activities.

**Iskandar Malaysia Geospatial** is an web-based application that allows user to view the spatial distribution via web-based. It is open to the public and authorized person for selected data.

**Geolskandar** is an application that allows user to view the spatial distribution via web-based. It can be only accessed by IRDA staff and authorized personnel.
Our Geolskandar System will be the key tool of Urban Observatory
IRDA’s GeoIskandar are currently used in various functions
Smartcity BigData

- Transportations Data
- Economic Data
- Security Data
- Jobs Data
- Environmental & Health Data
- Landuse Planning Data
- Social Index

Inter Agencies Integration

Sensors/Cameras & IoT

Info Sharing Policy
Objectives of Urban Observatory (UO)

• To identify and integrate urban information needs;

• To build urban information focusing on indicators and best practices;

• To provide information and analysis for more effective urban decision making

• To share information & knowledge using modern information technology
Integrated ICT Infrastructure for Iskandar Malaysia (IM3i)

- Internet of Things (IoTs)
- BigData
- Mobility
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Our journey to Smart City

Smart City Iskandar Malaysia endorsed by Malaysian PM
1st November 2012
COP 18, Doha
COP 19, Warsaw
Low Carbon Society
Blueprint for
Iskandar Malaysia
2025
Comprehensive
Development Plan
2006-2025

COP 18, Doha
Smart Healthy City
Smart City Booklet
IM Smart City Recognition Guideline for Award


COP 19, Warsaw
Comprehensive Development Plan II
2015-2025
SE4All

COP 20, Peru
Comprehensive Development Plan II
2015-2025

METROPOLIS
OF INTERNATIONAL STANDING

Smart City Booklet
SE4All
Smart Healthy City
METROPOLIS
OF INTERNATIONAL STANDING
Our journey to Smart City

IM Smart City Recognition Guideline for Award
Smart City framework and initiatives as a tool to expedite IM vision and holistic ecosystem

Eleventh Malaysia Plan 2016-2020 acknowledges the necessity of smart city development focusing on infrastructure strengthening to support economic expansion and quality of life.

Objectives

- How we **focus, think and implement** to achieve Iskandar Malaysia vision in 2025.
- Transform the **quality of life** and accelerate economy through a **sustainable economic and technological ecosystem** towards smart, connected & inclusive communities.

Strategies

- Widespread and innovative use of **information and communication technologies (ICT)** to plan and share resources for economic, environment and social developments towards **better quality and sustainable living**.
- Integration of **economy, environment and social**, focusing on 6 factors namely **Smart Economy, Smart Governance, Smart Environment, Smart Mobility, Smart People and Smart Living**.
6 Dimensions and 28 Characters, defined Smart City Iskandar Malaysia

**SMART ECONOMY**
- Economic Growth and Value Creation
- Innovative economic growth
- Equitable Wealth Distribution
- Entrepreneurship

**SMART ENVIRONMENT**
- Clean environment
- Environmental protection
- Green development
- Green infrastructure
- Smart Growth
- Green Economy

**SMART GOVERNANCE**
- Public Participation
- Efficient Public and social services
- Private Public Partnership
- Transparent governance

**SMART MOBILITY**
- Efficient Road accessibility
- Efficient Public transportation
- Non motorized accessibility
- Availability of ICT infrastructure

**SMART LIVING**
- Safety and security
- Low Carbon lifestyle
- Housing quality
- Educational quality
- Health Conditions
- Cultural facilities
- Tourist/recreational attractiveness

**SMART PEOPLE**
- Caring community
- Racial Harmony
- Skilled and Talented Human Capital

**PRODUCE SMART PEOPLE AND MINDSET**
- Attract economy through smart investment
- Smart governance that focus on 'rakyat' needs

**PROVIDE SMART MOBILITY AND CONNECTIVITY**
- Manage environment through smart collaboration

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35 programs were identified

Smart Mobility
- Mobility management system (IRDA)
- EV Cars and Charging Station (by IRDA)

ICT Infrastructure Improvement
- Existing Fiber Network
- Planned Fiber Network
- Existing Central Office
- Planned Central Office

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Quick Wins completed since launched

** Smart Governance **
- Government Regional Electronic Advancement Transformation (MAMPU)

** Smart Living **
Wireless Iskandar Malaysia (Johor State)
- Owner: Johor State Government
- DCS Operator: Jana DCS Sdn Bhd
- Not fully utilized due to dev phases in the area.

** Smart Environment **
CCTV (IRDA and City Council)
- 95% agree
  - Level of security improved
  - Fear of crime reduced

District Cooling System for Kota Iskandar (DCS Janakuasa)
- Owner: Johor State Government
Making the most (in progress)

**Smart Environment**

An integrated water treatment plant – processing both sewerage and storm water to Class II water. The project also take care of flash flood in the city via an underground retention pond.

**Smart Economy**

A joint venture company that offer and operate smart services in Nusajaya.

**Nusajaya Smart and Connected City**
(by TM/UEM)
New opportunities (in pipeline)

IM as World Class Data Centre Hub.
- DC to drive the overall ICT and cyber related industry growth in IM
- Key projects:
  - Nusajaya Tech Park
  - Senai Hi Tech Park
  - Sedenak Iskandar Data Hub

Centre for data collection, assessment and dissemination
- Decision-making & monitoring tools
- Accuracy in project cost estimation
- Alignment to international indicators for comparison

IM as 2nd Malaysia ICT hub (IRDA/MDEC)

IM Urban Observatory (IRDA)
Iskandar Malaysia as one of the world’s 10 cities/regions to take part in SE4ALL programs as announced in Climate Summit 2014 in New York, United States.

Agreement on 2 agendas:
1. Building Efficiency Agenda
2. District Energy

Breaking new grounds (future)
ISKANDAR MALAYSIA AND UKTI SIGN MOU TO PROMOTE COLLABORATION ON SMARTCITY INITIATIVES

This can be a platform for Iskandar Malaysia to identify potential partners from the UK for collaboration with local companies in implementing research and development (R&D), and innovation for Sustainable Smart Cities development, new green building materials and technologies.

ISKANDAR INNOVATIVE SUSTAINABLE TRANSPORT SOLUTIONS

To improve Iskandar Region sustainable transport policies and disseminate its results to other regions in Malaysia and countries in South-East Asia.

ESTABLISH SMART CITY ISKANDAR MALAYSIA GUIDELINES AND RECOGNITION PROGRAMS
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Many challenges faced in driving smart city initiatives

1: Strengthen the institutional framework

- Lack of specific policy and strategy
- No mandatory regulations
- Lack of stakeholder participation

1. Establish:
   - steering committee
   - Energy Unit for IM
   - standards and guidelines for recognition

2. Review legal mechanisms

2: Provide conducive business environment

- Limited incentives and financial support
- Uncompetitive product cost
- Limited Skills and knowledge workers

1. Explore monetary and fiscal measures
2. Knowledge sharing
3. Promote foreign direct investments
4. Capacity building

3: Intensify Human Capital Development

- Few research and educational institutions focus on Smart City agenda
- Limited technical capacity

1. Financial grants or assistance
2. Centres of excellence or research institutes
3. Smart partnerships between gov, industries, research institutions

4: Intensify Smart City Research and Innovations

- Limited funding to encourage R&D – Local grant
- Lack platform for networking of related R&D

1. Smart partnerships between gov, industries and research institute
2. Encourage link between local, regional and international centres of excellence

5: Promotion and public awareness

- Lack awareness on smart city
  - accessible info
  - effective promotion
  - involvement of media, NGO and individual

1. Comprehensive roll-out programmes to increase public awareness
2. Partnering with developer for experiential centre
THANK YOU FOR YOUR ATTENTION

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