Developing A Smart City – The Liveable And Sustainable Perspective

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UTMC

Social network

SMART
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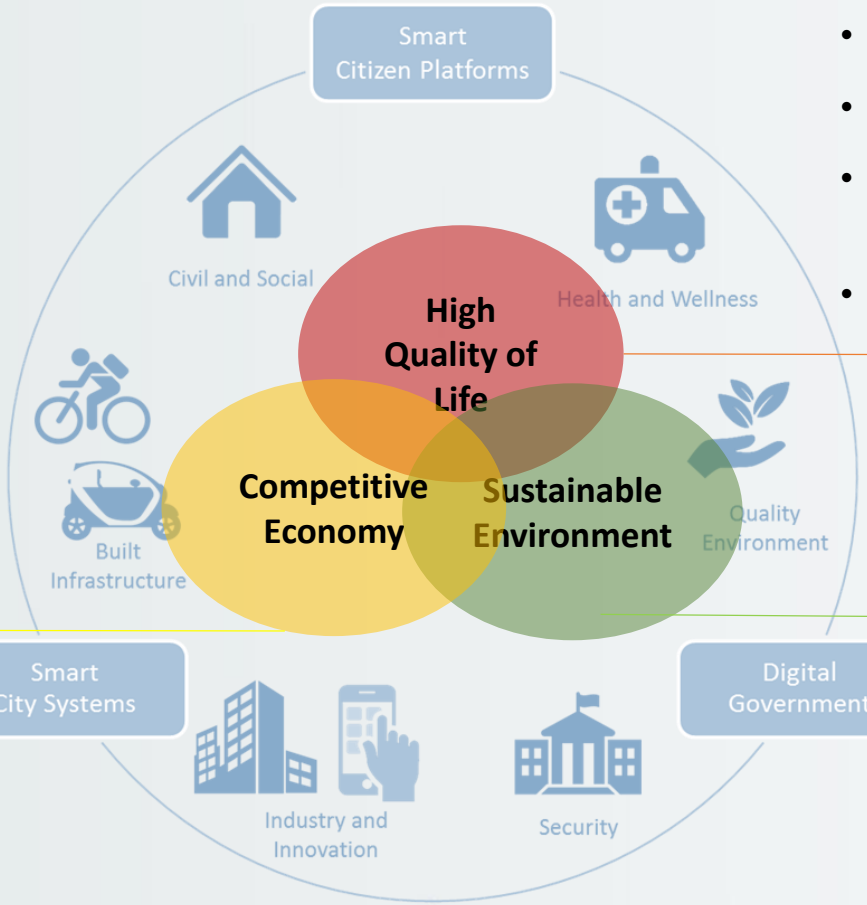
Papers
Plastics
Cans
All Others

JURONG EAST
51

Smart City – Goals

- Inclusive community
- Safety & security
- Accessible and adequate public goods and services
- Unique city character through its culture, heritage and urban design



- Resilient economy
- Competitive workforce
- Inclusive growth

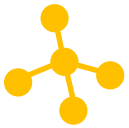
- Clean environment
- Resource management
- Green & Healthy Eco-systems
- Urban resilience

Facts on Singapore

- Population of **5.61** mil
- Land area of **719** km^2
- **7,800** persons/km^2 density
- Very **limited** natural resources
- **Essential** needs of a country for defence, accessibility (airport, sea port), basic survival (e.g. water supply and catchment)

Laying the Foundation Right

"Smart" principles to guide our urban development towards the sustainable and liveable outcomes



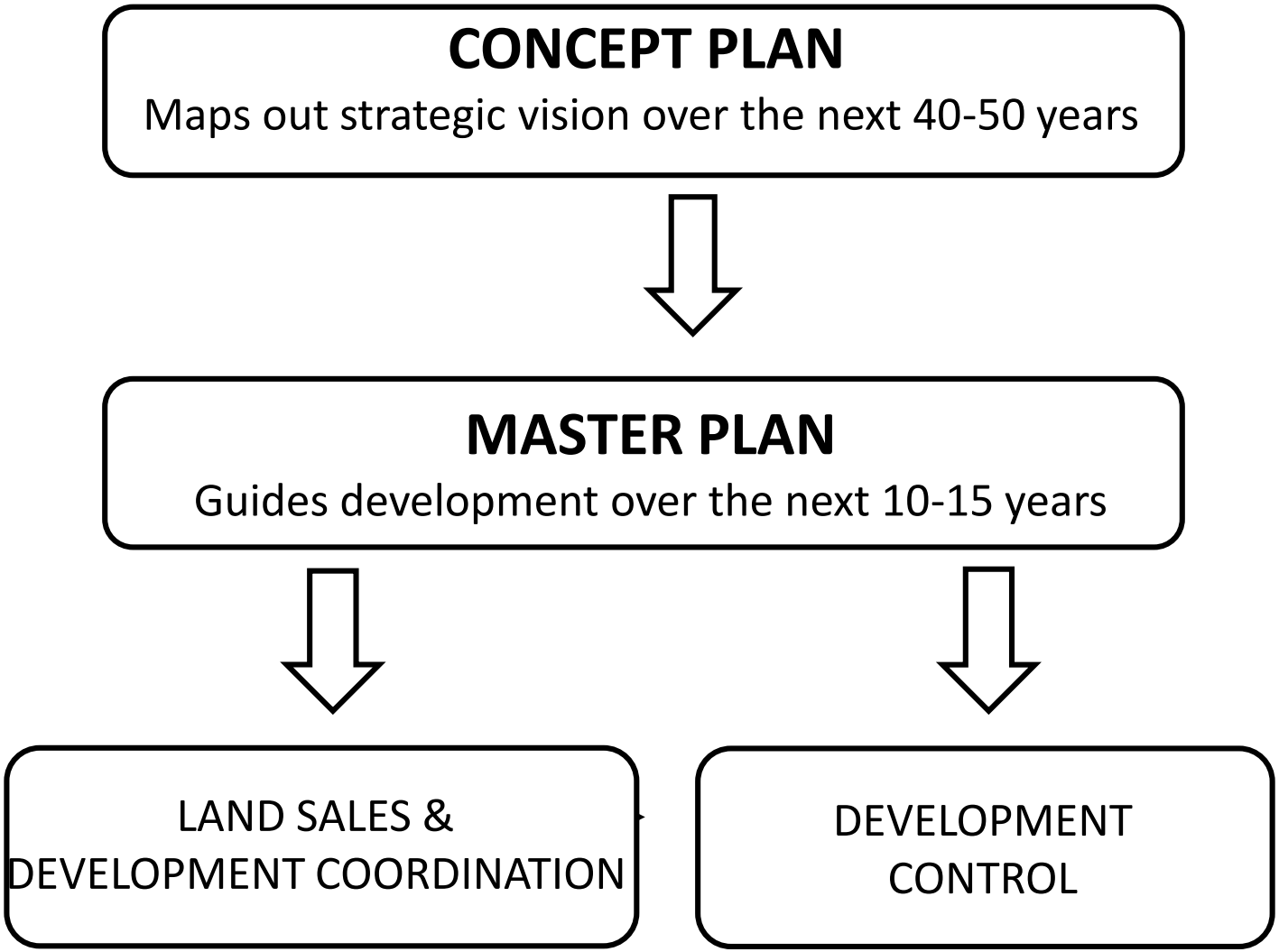
Integrated Master Planning & Development

- Think long term
- "Fight productively"
- Build in flexibility
- Execute effectively
- Innovate systematically

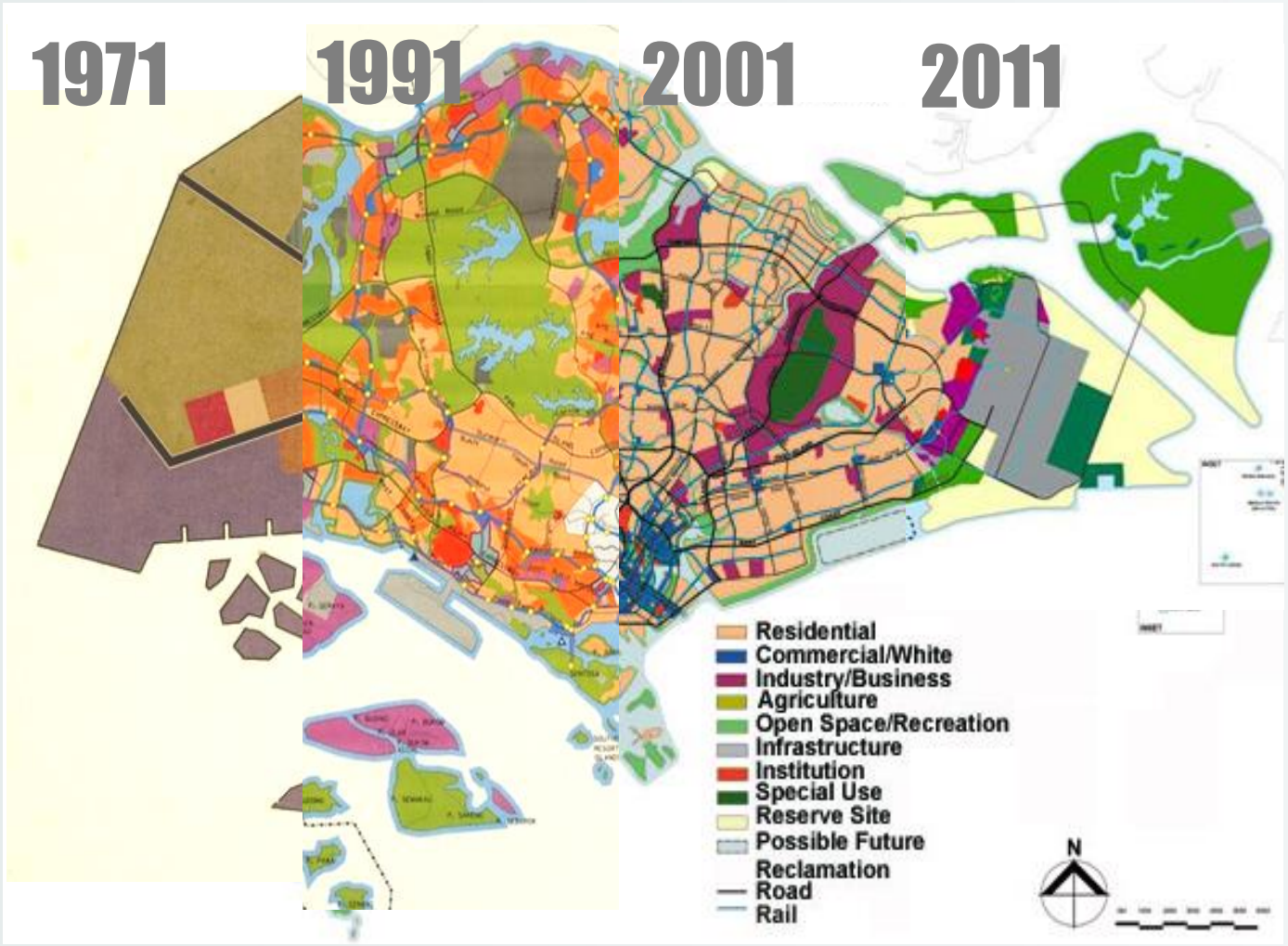
Dynamic Urban Governance

- Lead with vision and pragmatism
- Build a culture of integrity
- Cultivate sound institutions
- Involve stakeholders
- Work with markets

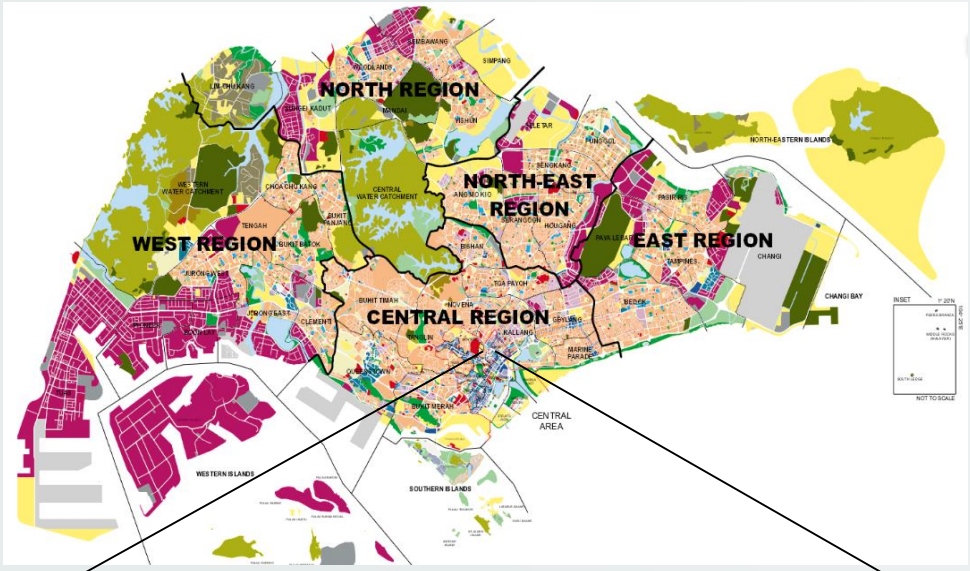
Planning and Development Framework



Concept Plan



Master Plan



Provide detailed land use plan to guide development for individual land plot.

Provide transparency and facilitate efficient development process.

Reviewed periodically and systematically to keep pace with the development trends and new demands.

Whole-of-Society Effort

- A multi-agency and multi-stakeholder effort; with public consultation
- Mechanism/ platforms in place to facilitate this whole-of-government approach and to iron out conflicts and trade-offs
- Example: Master Plan Committee (MPC); Garden City Action Committee (GCAC)

Competitive Economy

1. Resilient Economy
2. Competitive Workforce
3. Inclusive Growth

Competitive Economy

Knowledge Economy

High-value Added Industries

Labour Intensive Manufacturing

Entropot

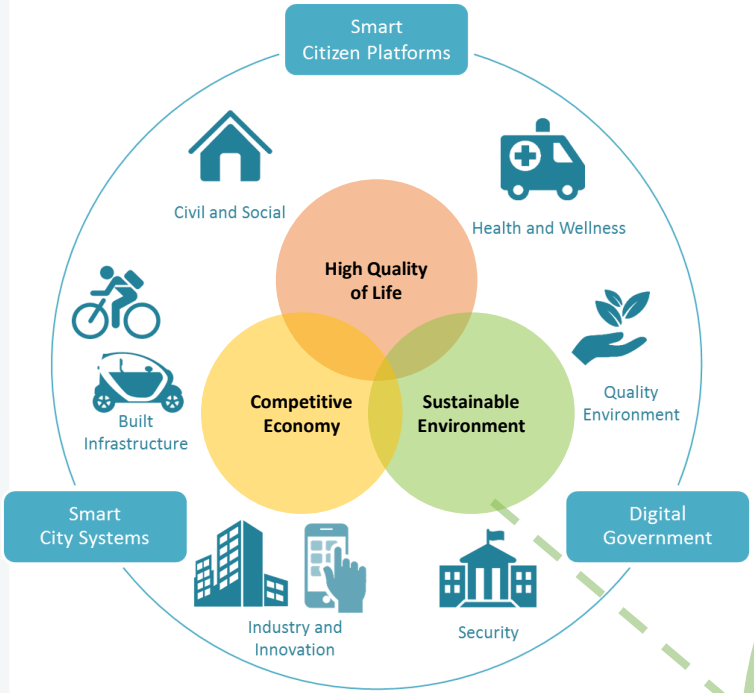
Port City

Industrial City

Business Park

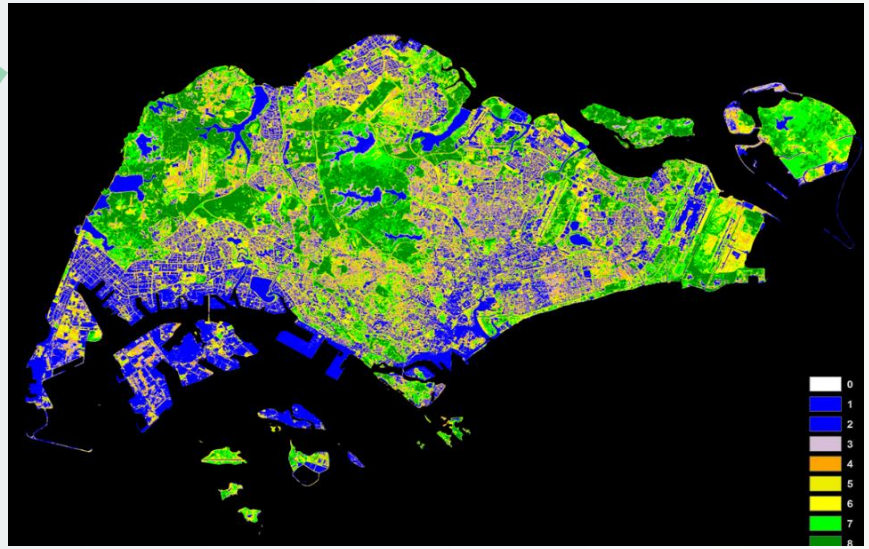
City in a Garden

Sustainable Environment

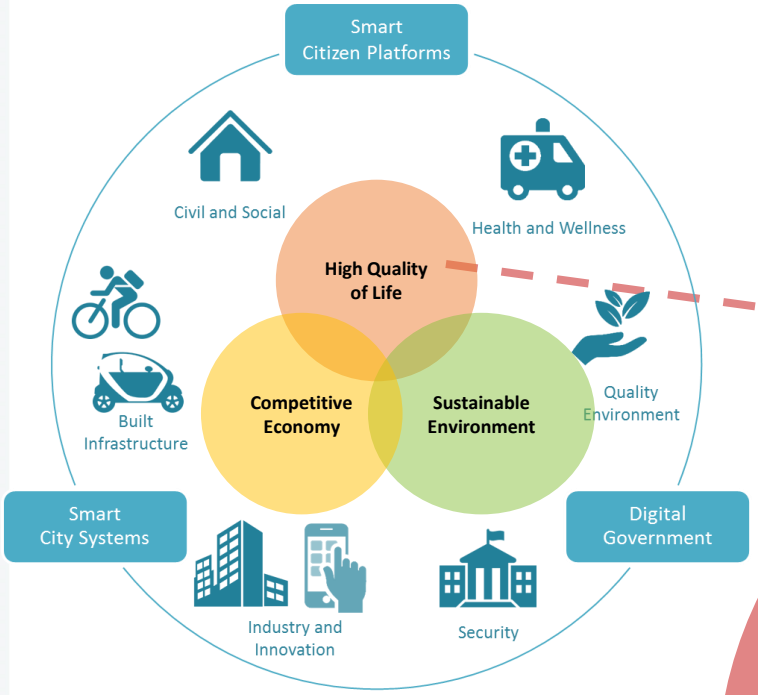


1. Adequate land, water and energy to meet long term needs.
2. Clean and good quality environment *(air, water, waste management, noise level)*
3. Green & Healthy Eco-Systems
4. Resilient to Environmental Risks *(climate change, natural disasters, food security)*

Sustainable Environment



High Quality of Life



1. Safe & Secure environment
2. Equitable & Inclusive society
3. Accessible & Adequate public goods and services *(transport, water, sanitation, health system)*
4. Affordable & Diverse social, recreational & cultural aspects to meet essential needs

High Quality of Life

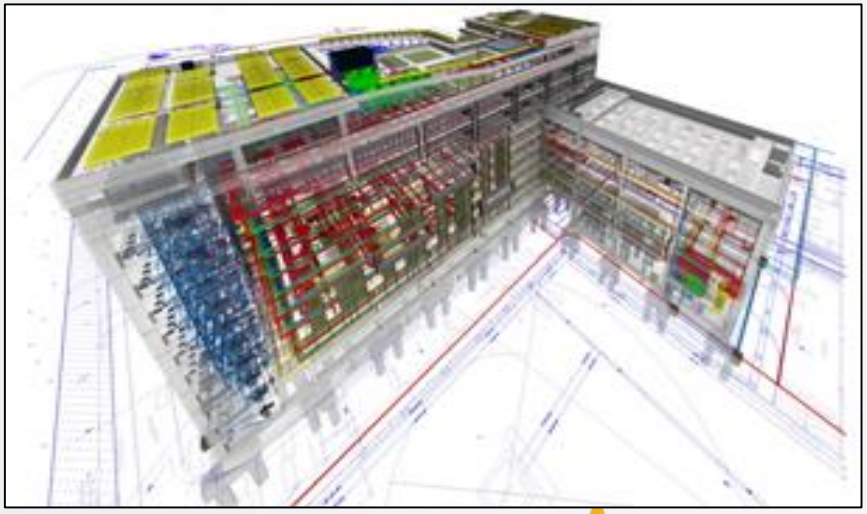
Treelodge @ Punggol

Pinnacle @ Duxton

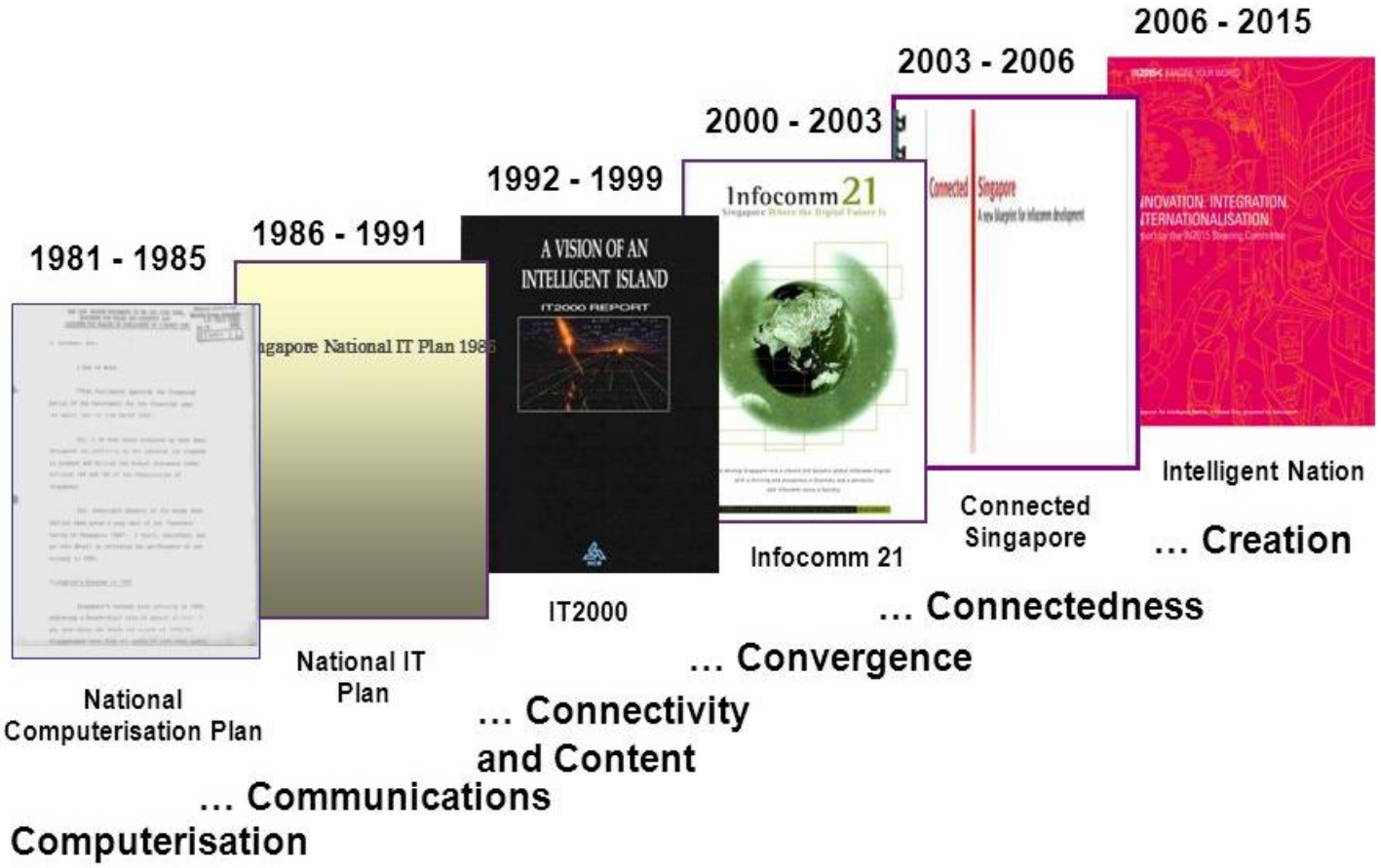
Clementi

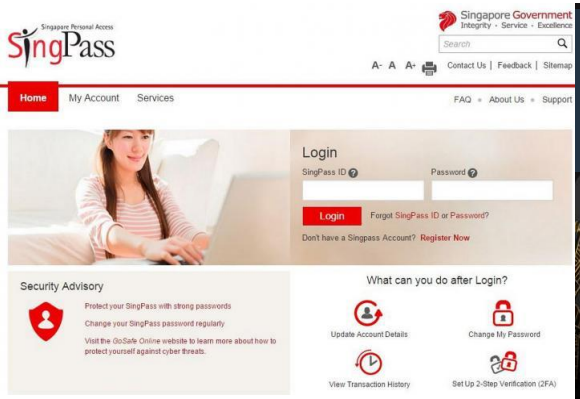
- **High-density, high-rise** flats built since independence when it was unpopular in other cities. Today, 80% of residents live in public housing flats.
- **Self-contained towns** with schools, libraries, clinics/hospitals, supermarkets, F&B outlets, accessible transportation, and recreational facilities.
- Ensure **social integration and community identities** through various programmes.

Intelligent Systems in Various Urban Domains



Foundation for Smart City





Home & Environment

Smart Mobility

Healthcare & Enabled Ageing

Public Sector Services

Business Productivity

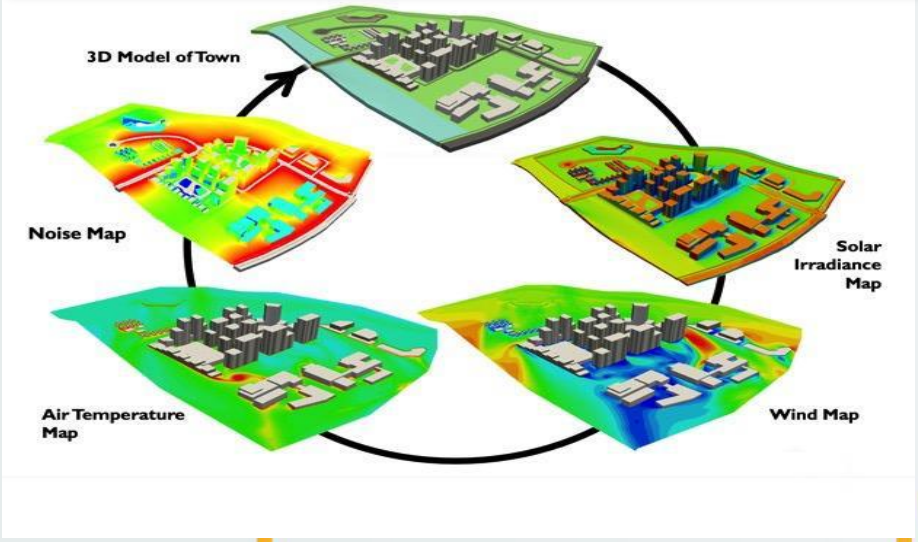
Home & Environment

Enhance safe, sustainable and liveable living environment

LED Lighting + Motion Sensors

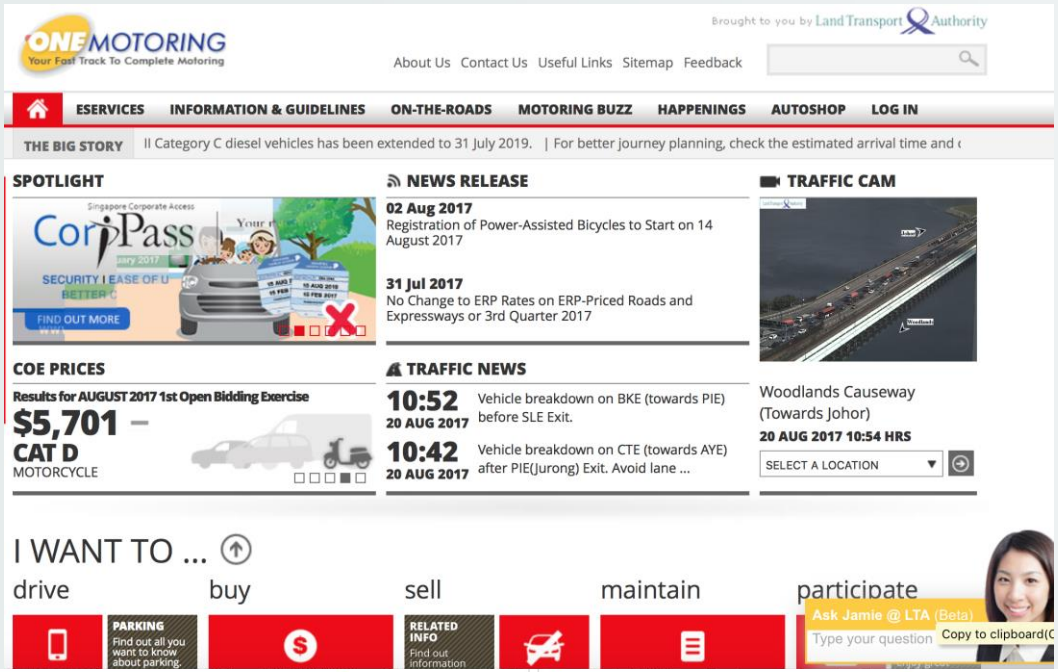
Regenerative System &
Fuel Cells for Lifts

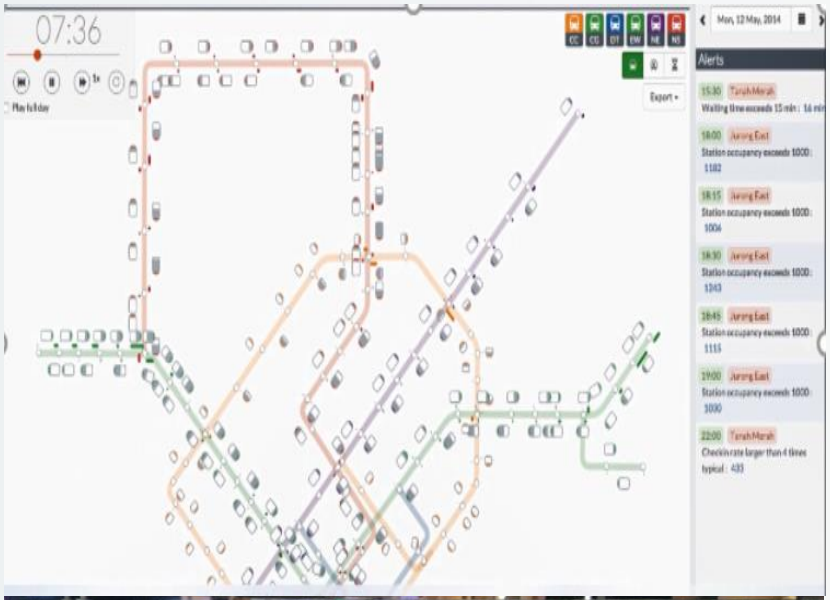
Smart Metering & In-home Display
Test Bed

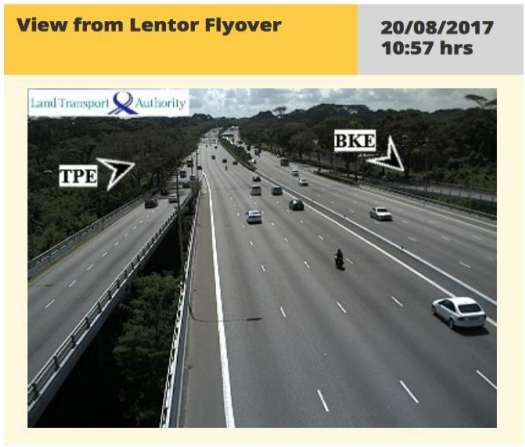


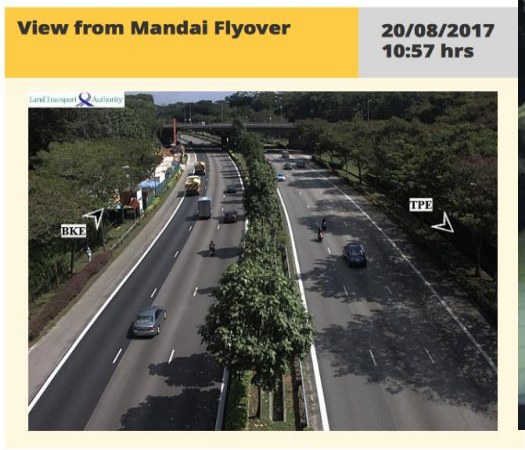
Smart Mobility

Optimise space for more efficient, safe, reliable and enhanced transportation







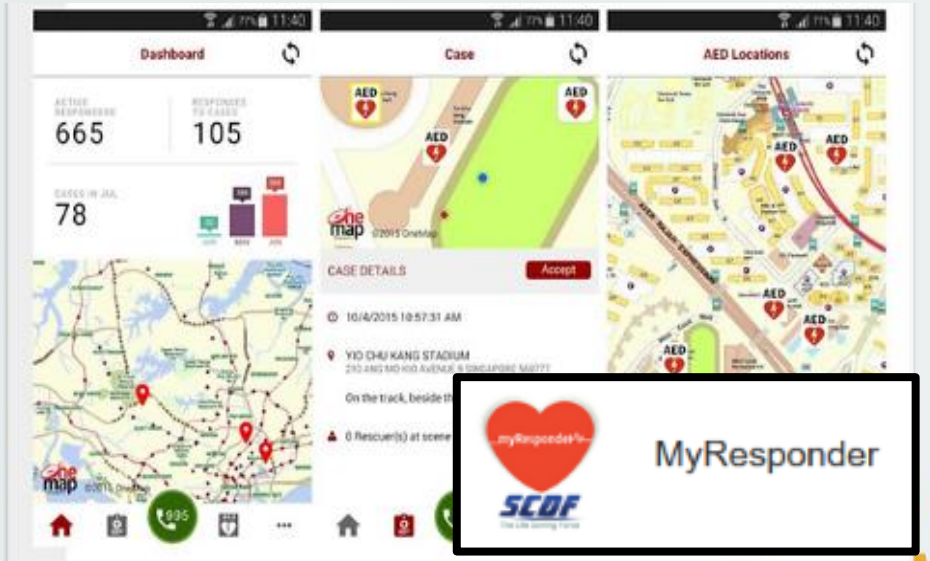


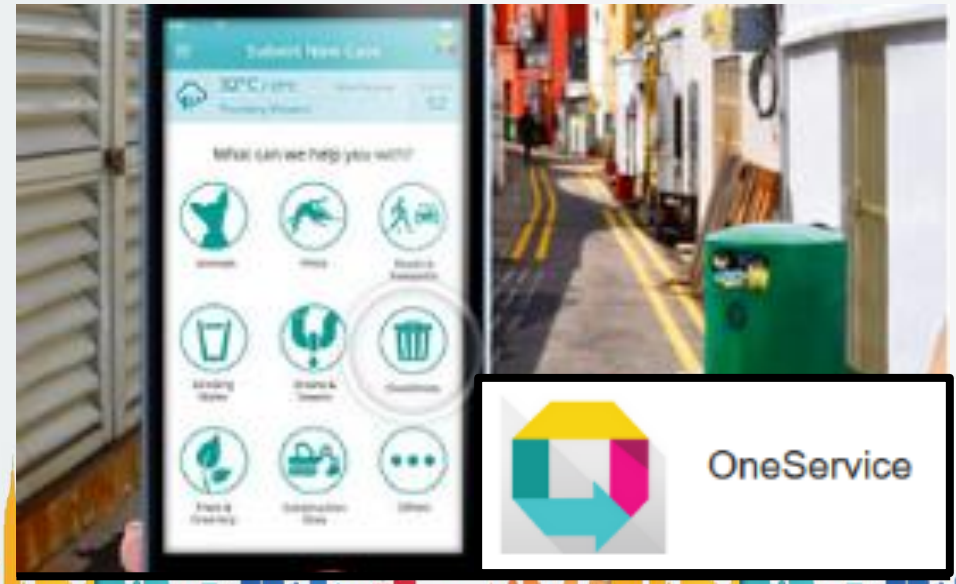
Public Sector Services

Tech-enabled solutions to enhance quality of public services

- Collection of ground sensing data such as crowd-sourcing, civil engagement and government data sharing portal

- Greater sense of community ownership, participation and problem-solving on the Internet





ASEAN Smart Cities Network (ASCN)

ASEAN 2018
Resilient & Innovative

- A regional ecosystem to synergise smart city development across ASEAN.
- A network of smart cities as hubs to prepare the region for challenges and opportunities.

26 CITIES

INDUSTRY PARTNERS

15 EXTERNAL PARTNERS

ASEAN Smart Cities Framework

Version 2

(Updated as of 14 June 2018)

SMART CITY SSTRATEGIC OUTCOMES

URBAN SYSTEMS

- Integrated Master Planning and Development
- Dynamic and Adaptive Urban Governance

DEVELOPMENT FOCUS AREAS

Civic & Social
- Social Cohesion
- Culture and Heritage
- Tourism
- Public and Municipal Services

Health and Well-being
- Housing and Home
- Healthcare
- Education

Safety and Security
- Resource Security
- Cybersecurity
- Public Safety, City Surveillance and Crime Prevention

Quality Environment
- Clean Environment
- Resource Access and management.
- Urban Resilience

Built Infrastructure
- Utilities
- Mobility and Transportation
- Buildings and Construction

Industry and Innovation
- Business & entrepreneurship
- Trade and Commerce
- Upskilling
- Technology Incubation
- Research

ENABLERS

Digital Infrastructure & Applications

Partnership & Funding

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Thank You!

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