



Hãy nói theo cách của bạn

VIETTEL SOLUTIONS:

**MAKING SMART CITIES
VISION A REALITY**

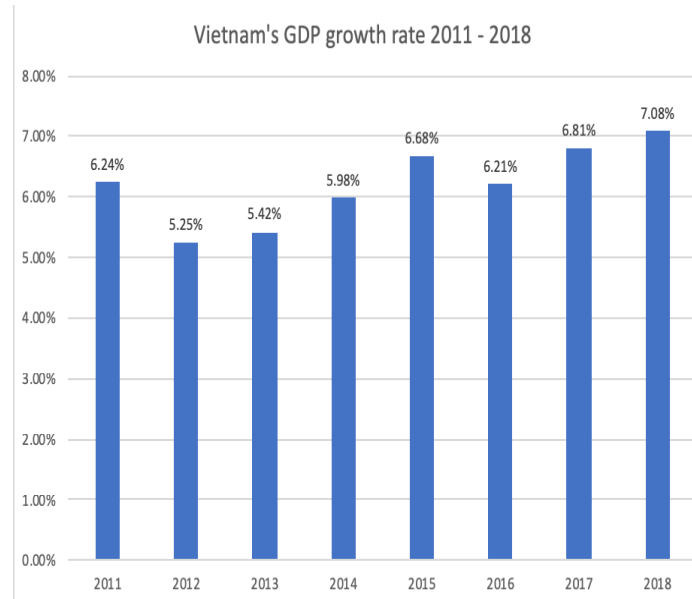


VIETNAM BRIEF INTRODUCTION

Emerging Developing Country



Fast Growing Economy



Big Population Country



**“Vietnam is young,
growing, and anything
feels possible”**

said by Peter Vanham, Media
Lead at the US and Industries of
the World Economic Forum

**“Vietnam will be among
the top 10 fastest-
growing economies
globally”**

according to the “Economic
Insight: South-East Asia” report

Population of over **94
millions**, 66th largest country
but 15th most populous
country in the world

WHY SMART CITIES?

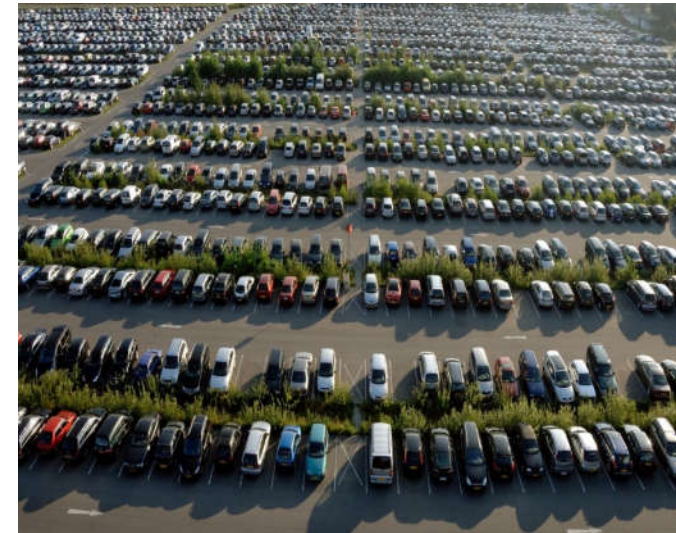
Environmental Pollution



Traffic Congestion



Parking



5-7% GDP
(\$11.4-15.9
billion)/year
total economic losses
due to early deaths
caused by air
pollution

40.000
people/year
died of diseases
related to air
pollution

2.1%
Ha Noi annual urban
population growth
rate

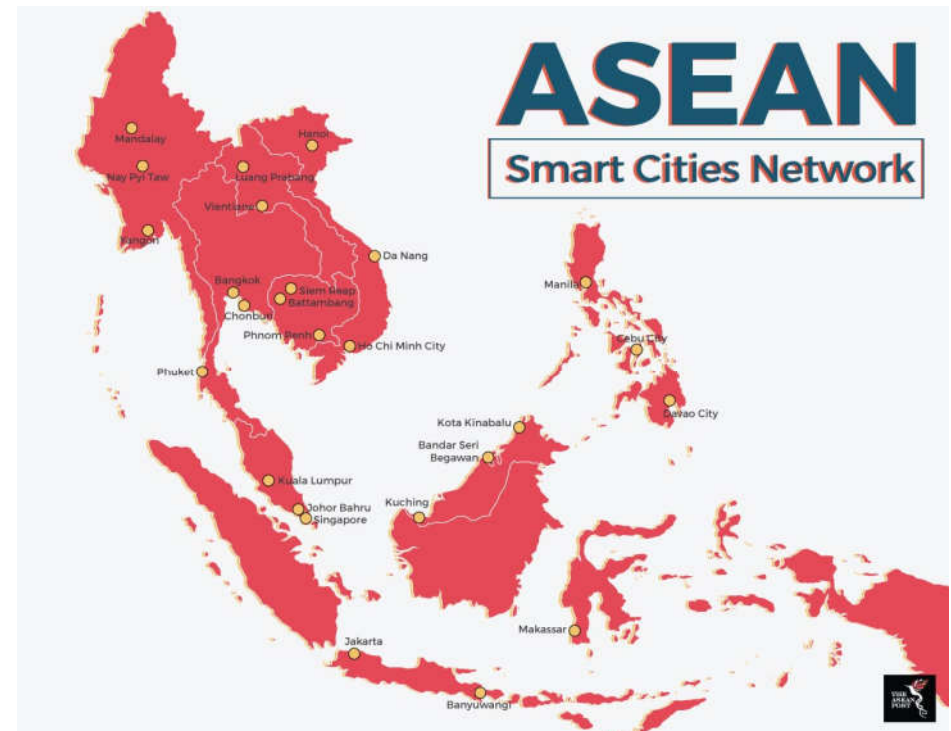
\$1.2 billion
USD/year
due to traffic
congestion in Ha Noi

30%
of traffic in cities
due to vehicles
looking for parking

Only 8-10%
for vehicle needs in
major cities (Ha Noi,
Ho Chi Minh, Da
Nang)

VIETNAM'S SUSTAINABLE SMART CITIES PROGRAM

- The Sustainable Smart City (SSC) Development plan until 2025, with a view toward 2030 (*Prime Minister Decision n. 950/QĐ-TTg on 1st Aug 2018*):
 - Smart City development: a part of the Vietnam Industry 4.0 implementation
 - Master plan for development of national standards for SSC development. ICT Reference Framework for Smart City development



ASEAN Smart Cities Network:
Hanoi, Ho Chi Minh City and Da Nang
BUT...limited government finance for
Smart Cities program

VIETTEL INTRODUCTION

1st ICT Company in Vietnam

- 60 millions mobile subscribers , 52% market share
- 6 millions FTTH subscribers, 40% market Share
- 1st ICT Provider, for Government, Enterprise and Consumer
- Largest Infrastructure

Top 30 Telecommunication Company Worldwide

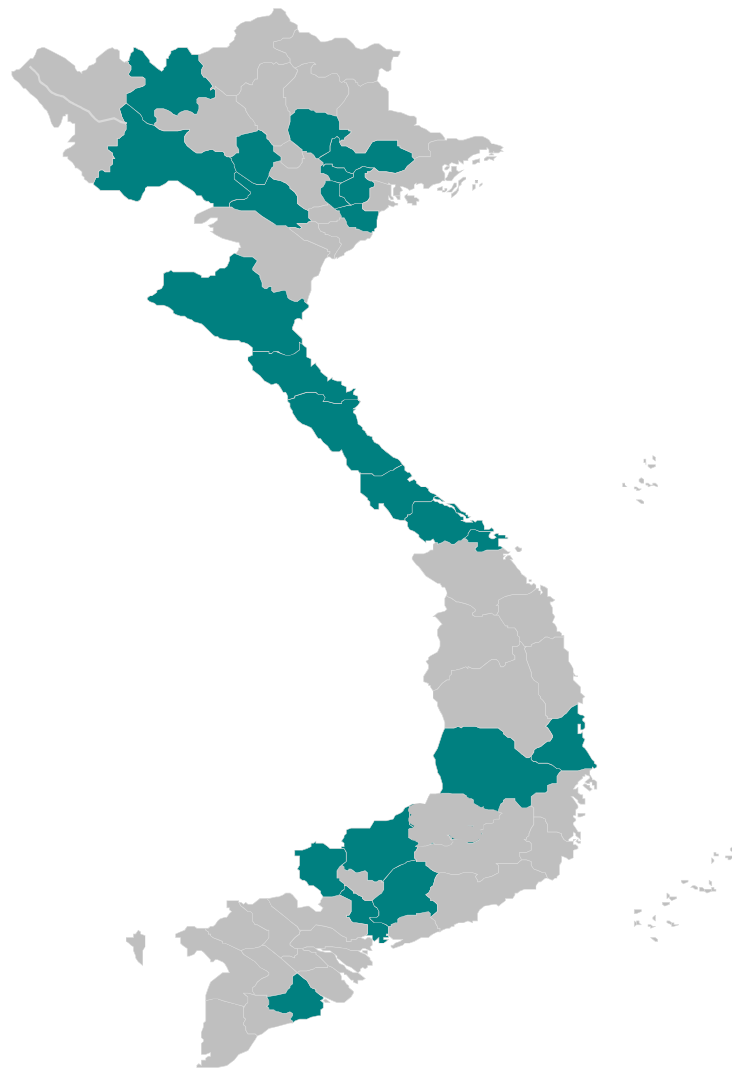
- 100 millions subscribers
- Present in 11 countries of Asia, Africa and America
- Revenue 2018: \$ 11 billion
- Net Profit 2018: \$ 2 Billion



VIETTEL'S SUSTAINABLE SMART CITIES PROGRAM

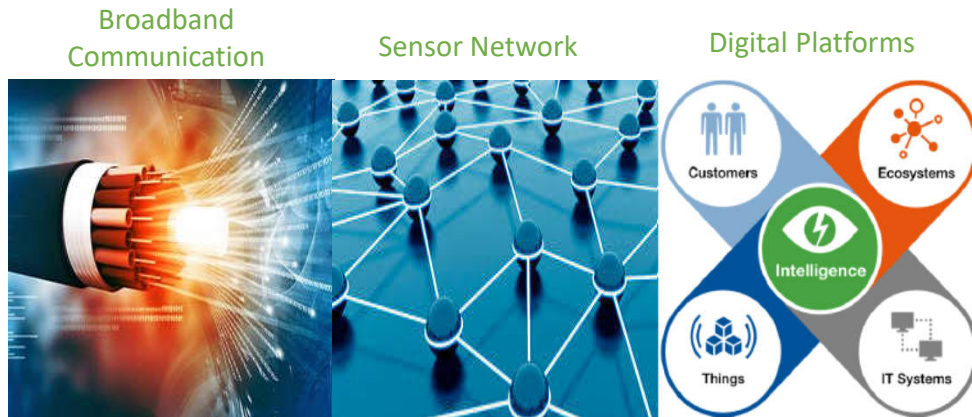


MOU with **24/63** provinces & central cities in Vietnam to develop Smart Cities

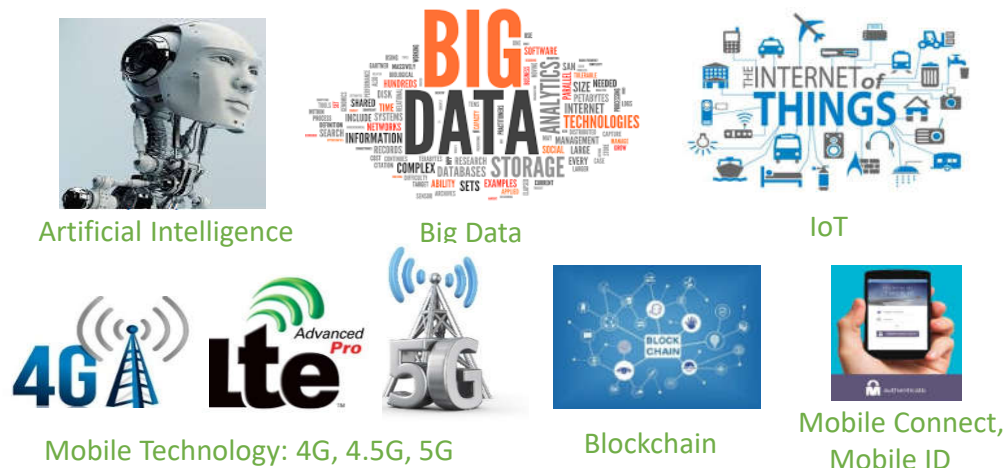


SMART CITIES: WHY VIETTEL?

- Digital Infrastructure



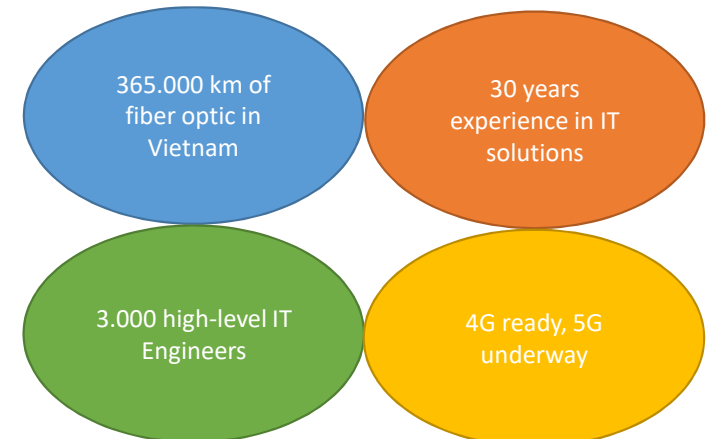
- Technology



- Partnership

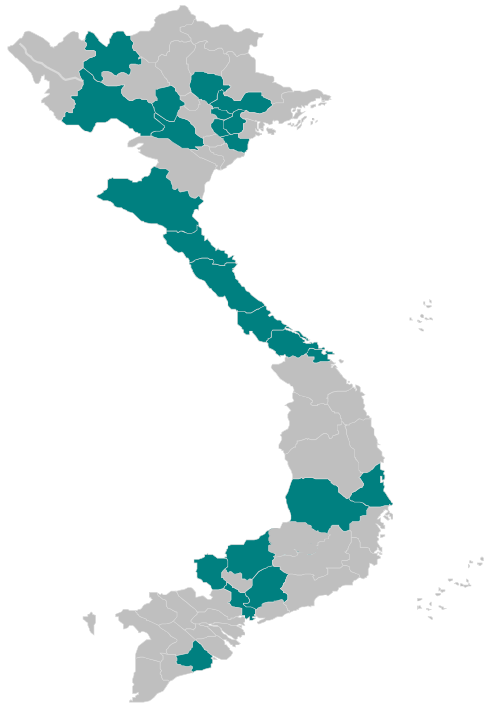


- Resource



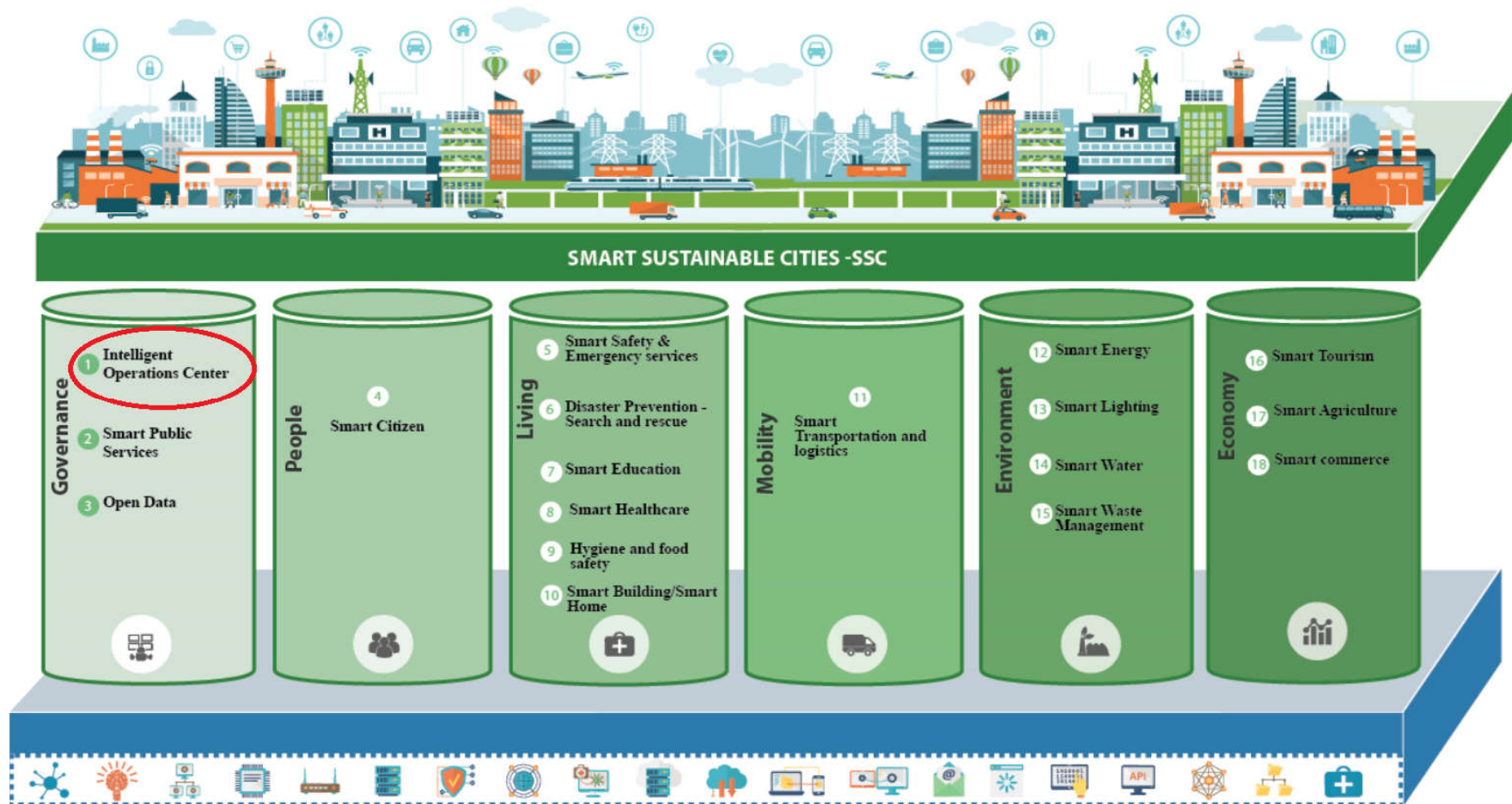
SMART CITIES: *WHY VIETTEL?*

- **Flexibility and Customization** for specific city needs
 - Solutions already implemented for all types of cities in Vietnam (large, medium, small)
 - Solutions planning for Cities in 10 countries (Cambodia, Cameroon, Haiti, Laos, Mozambique, Peru, Timor-Leste, Burundi, Tanzania, Myanmar)
 - Already some propositions for Intelligent Operation Center with partners after Mobile World Congress Barcelona 2019 for the African countries & France



SUSTAINABLE SMART CITIES SOLUTIONS BY VIETTEL

ICT Architecture Model for Smart & Sustainable Cities



VIETTEL'S INTELLIGENT OPERATION CENTER (IOC)

“An Intelligent Operation Center is a starting point for developing a Smart and Sustainable City”



- 1 Comprehensive connectivity
- 2 Common technology platform
- 3 Centralized operation
- 4 Smart & Sustainable development

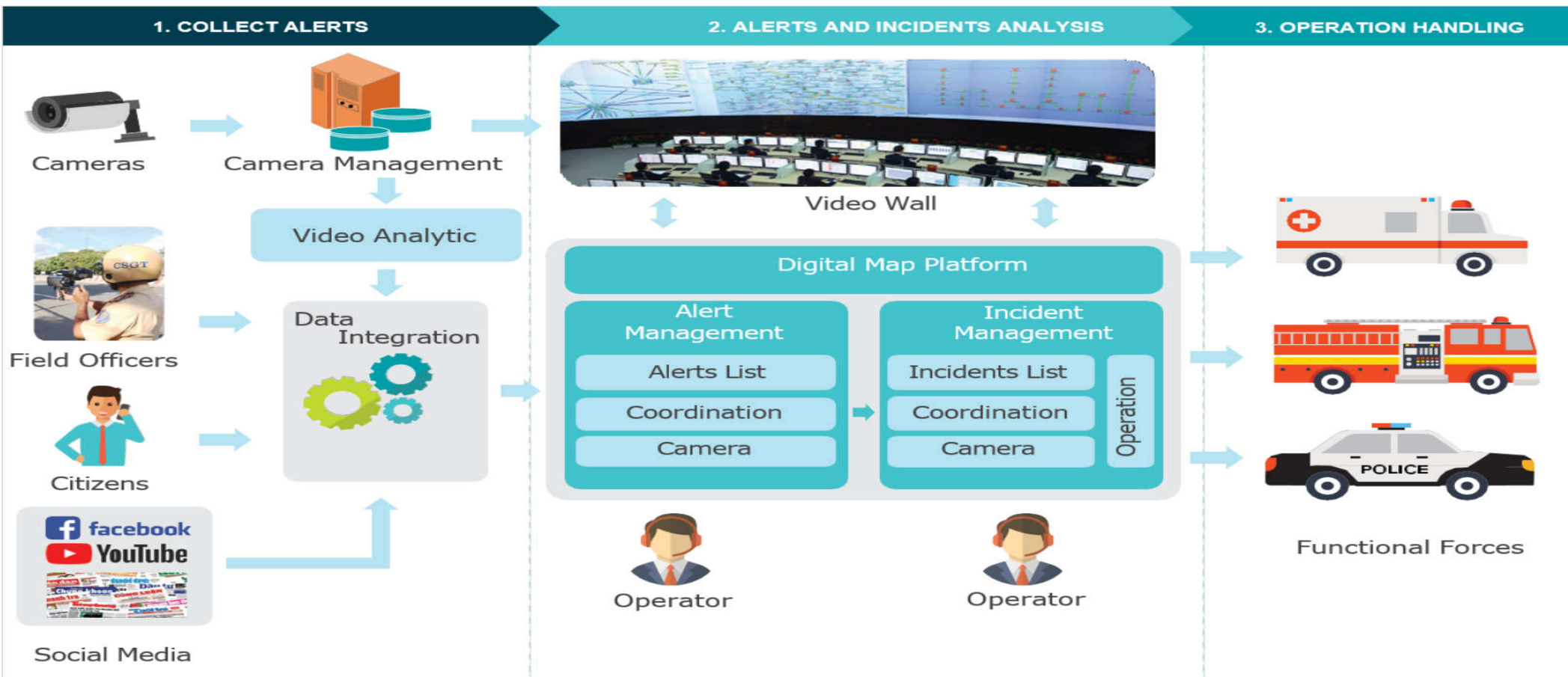
Why IOC?

Viettel's IOC at Mobile World Congress
Barcelona 2019



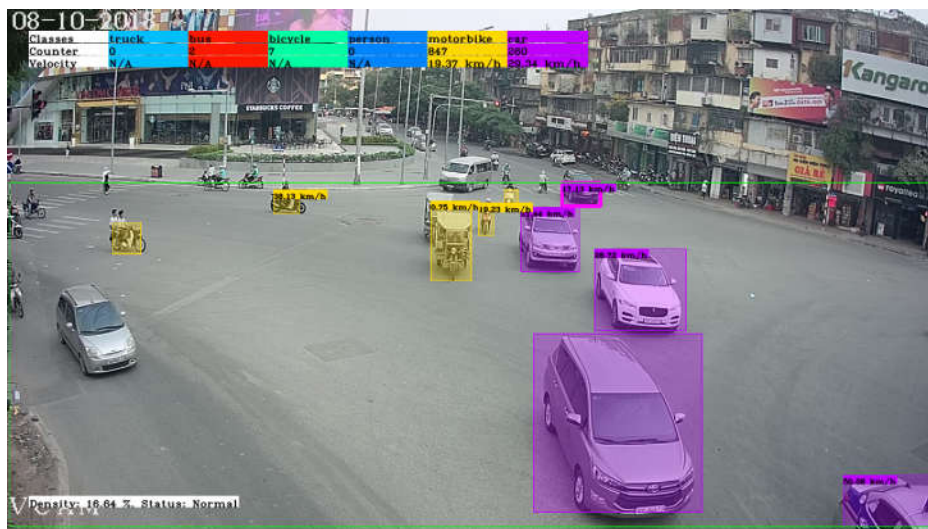
TRAFFIC & PUBLIC SAFE MONITORING CENTER

The core unit in managing and coordinating the city traffic system and public areas, ensuring urban security & order



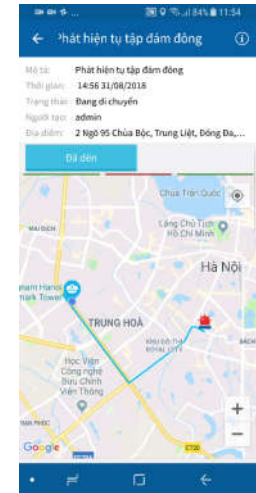
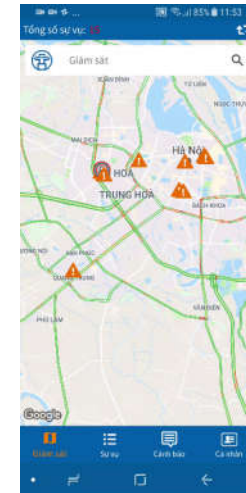
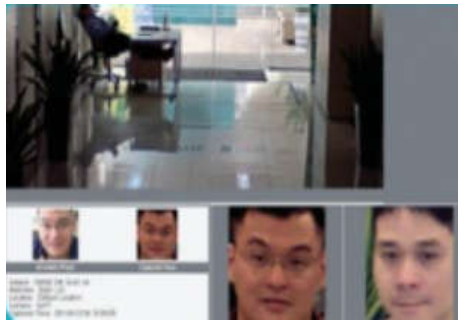
TRAFFIC MONITORING CENTER

- Traffic alerts/incidents management
- Traffic incidents operation
- Traffic flow monitoring
- Penalty system

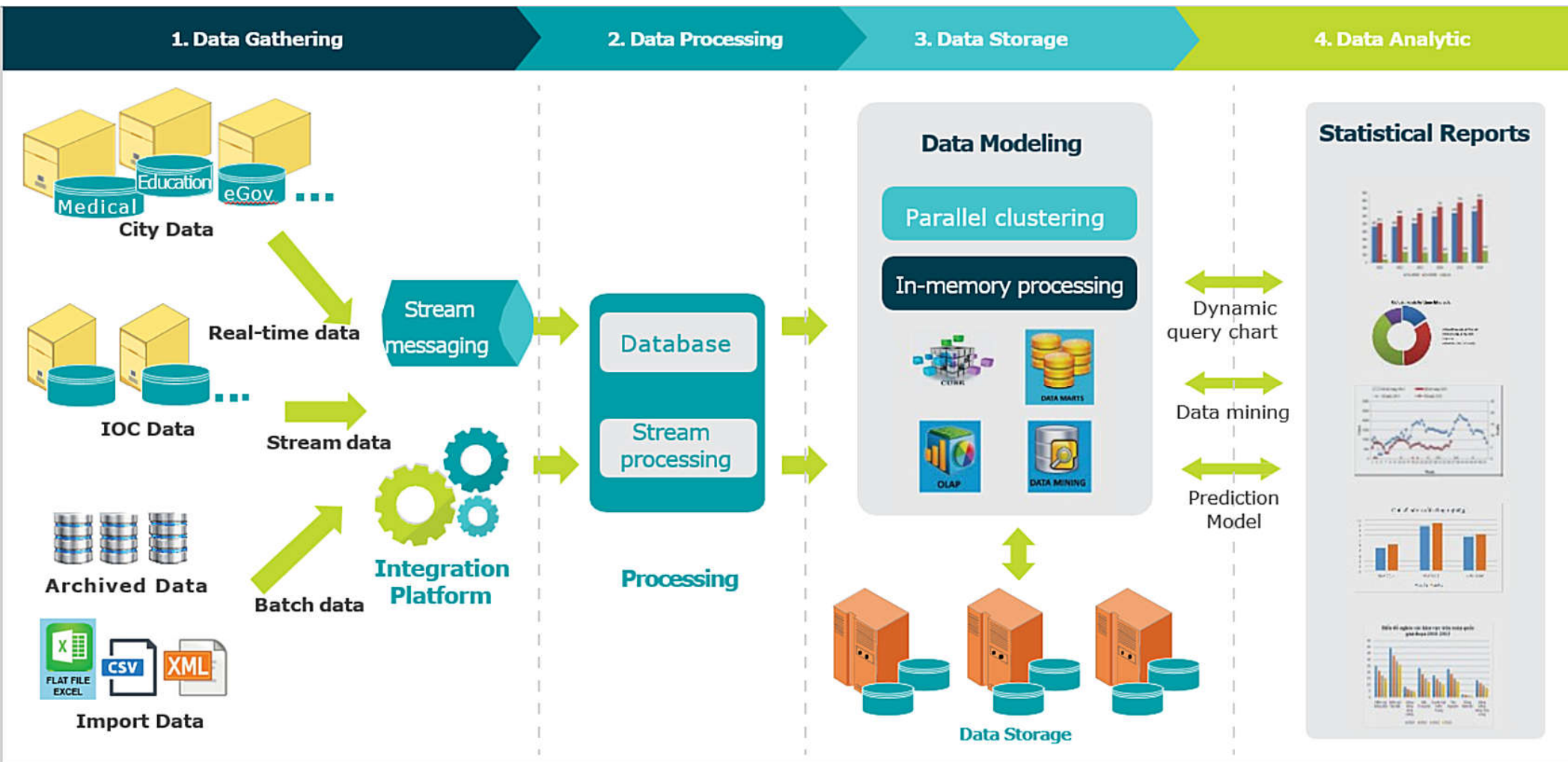


PUBLIC SAFETY MONITORING CENTER

- Security camera management
- Surveillance video analysis
- Security Alert/ incidents management
- Object tracing
- Smartphone App for Functional Forces

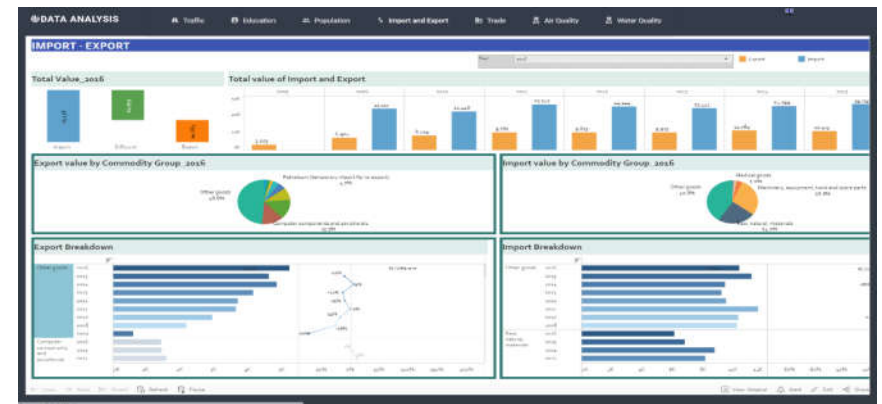
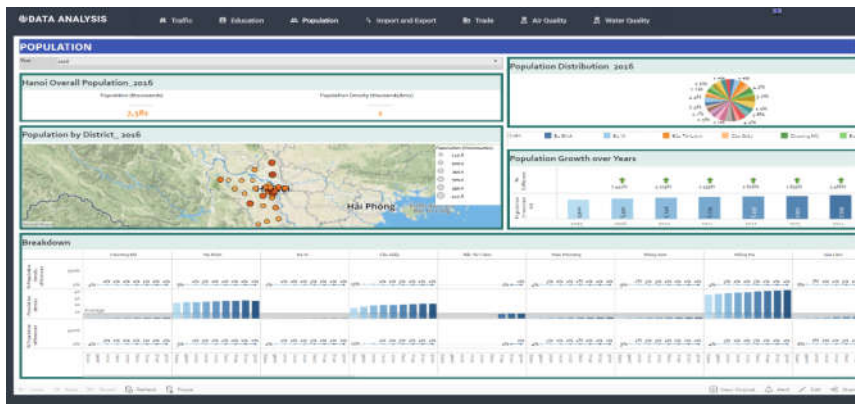
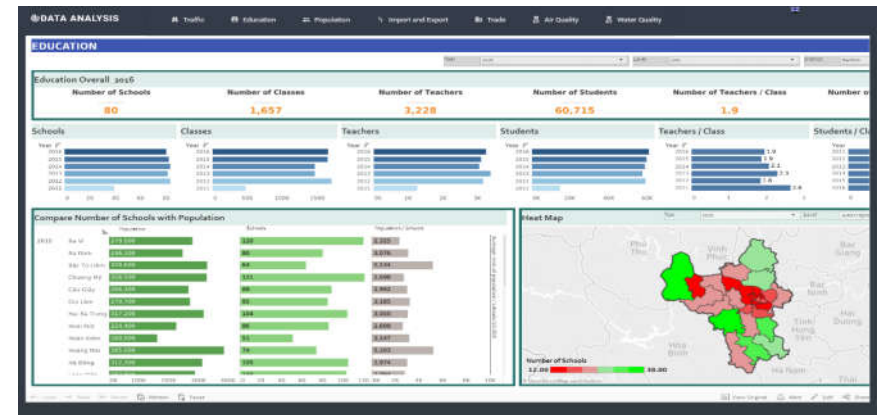
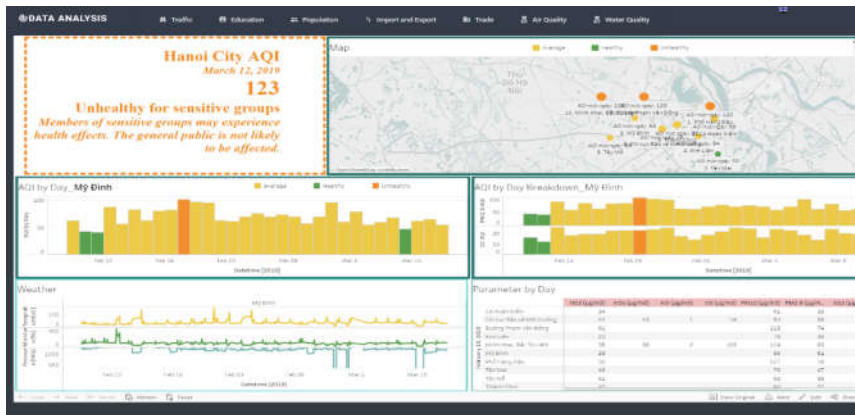


DATA INTEGRATION & ANALYTICS CENTER



DATA INTEGRATION & ANALYTICS CENTER

Hanoi's Data Analytics Center



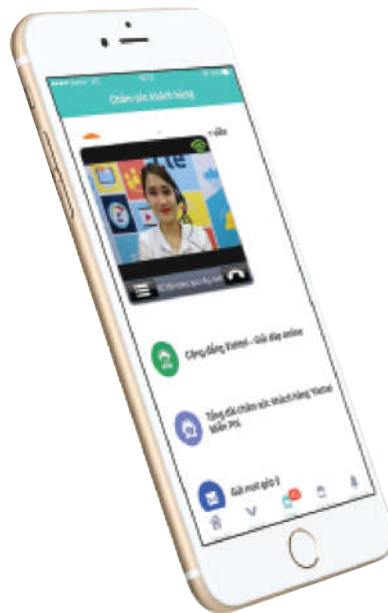
INFORMATION SECURITY MONITORING CENTER

- Malicious code removing
- System cleaning
- Information security policies enforcing
- Cyber-attack prevention
- 24/7 operating



CITIZEN SUPPORT CALL CENTER

- AI Bot module: Callbot, Chatbot...
- Automated PBX subsystem: automated lookup
- Automated call distribution
- Call transfer and call recording
- Professional counseling



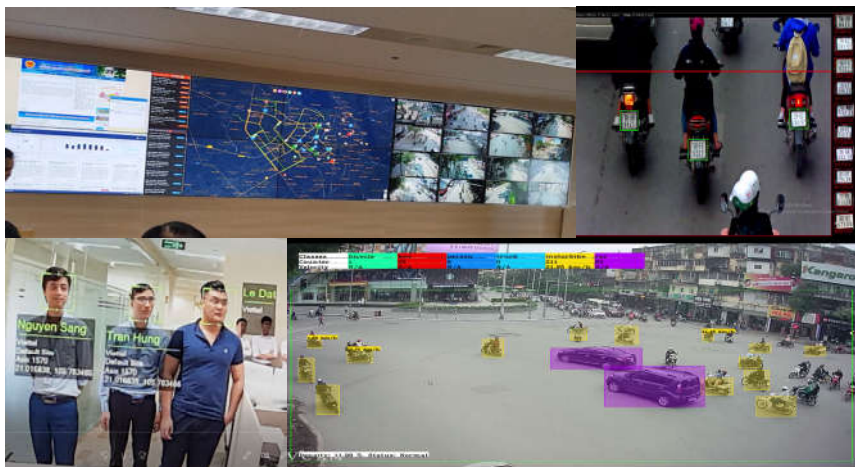
PUBLIC SERVICE MONITORING CENTER

- IoT platform
- Car parking
- Air monitoring system
- Intelligent trash bin
- Water quality monitoring system
- Urban lighting
- Flood monitoring system



VIETTEL'S IOC: WHERE WE DO?

Hanoi City



Phu Tho Province



Thua Thien Hue Province



Ho Chi Minh City



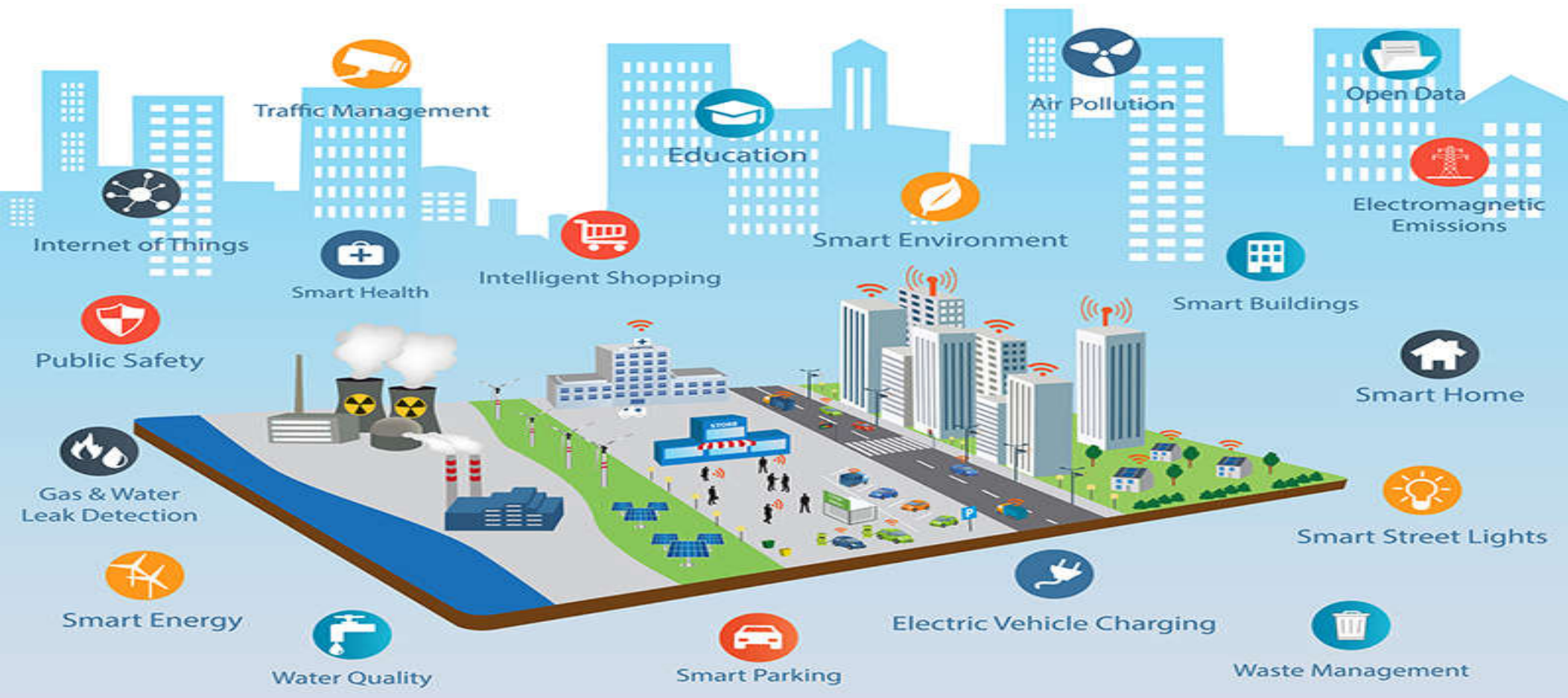
SMART CITIES: 22nd TELECOM ASIA AWARDS 2019



22nd Telecom Asia Awards

SMART CITIES IS A *JOURNEY*, NOT A DESTINATION

Sustainable Smart Cities by Viettel



Thank you for your attention!

