

Roundtable by the Smart Cities Network (SCN)

Are You Ready for Smart Cities in India?

October 2015

***Moderated by
Tay Kok Chin, Lead for SCN
Chairman, SG100 Foundation***

INNOVATION / SMART CITIES / INDIA / SINGAPORE

Singapore to Help India Build First Planned Smart City - Amaravati

The first smart city project in India to cost \$21 Billion. Singapore help India realise world-class infrastructure and sustainable environment.

28/10/2015

By Mohit Sagar

Singapore help India realise world-class infrastructure and sustainable environment

Source: <http://www.opengovasia.com/articles/6663-singapore-to-help-india-build-first-smart-city>

Synopsis of Roundtable

In November 2014, the Singapore government launched the Smart Nation initiative. It drew interests from several countries, and in 2015, it was reported that Singapore will help India realise world-class infrastructure and sustainable environment in Amaravati.

"Indian Prime Minister Narendra Modi called Amaravati a "benchmark" for new cities and a centre for economic growth."

In this segment, we will share the various opportunities for Smart Cities for Singapore-based companies, and what they would need to do to be prepared.

By participating in this Roundtable, you will gain insights on possible business opportunities and get to know the key stakeholders of the Smart Cities ecosystem in India.

Agenda

- Welcome and Intro
- Smart Cities Roundtable
- Sharing by McKinsey (Supriya)
- Sharing by MTI (Eric Tan)
- Sharing by Mott Macdonald (Howard)
- Sharing by HPE India (Kamal)
- Dialogue

The Smart Cities Network (SCN)

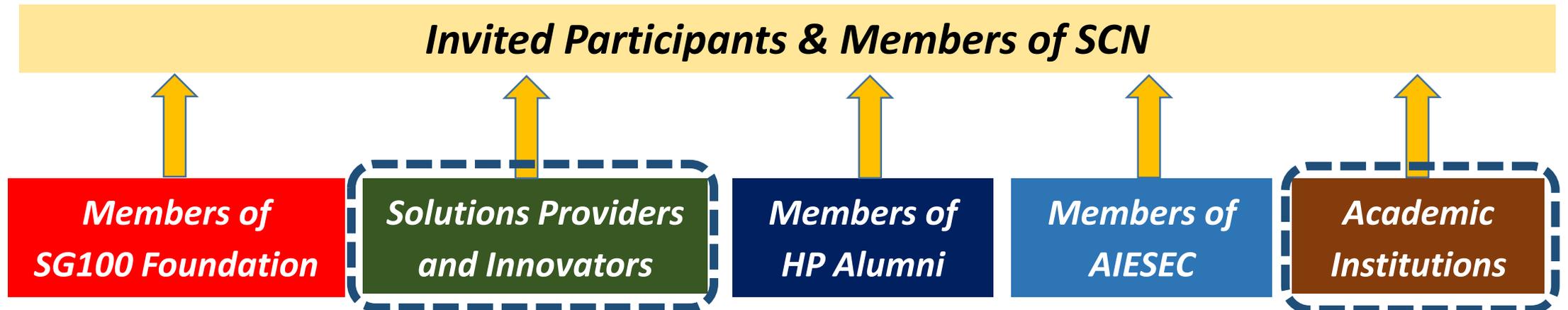
– An Initiative led by the SG100 Foundation Chairman

Events and Projects organized by the SCN Team

*Learning Journeys / Dialogues / **Roundtables** / Seminars / Conferences / etc*

- Action Plan Workshops*

Invite to Collaborate on “Smart Projects” for Singapore and India



The Smart Cities Roundtable on 27th July 2017

Jason Tan from HPE



Objectives of SCN

- 1) Level up understanding of Smart Nation and Smart Cities - Summary and Recommendations from the Roundtable will be shared**
- 2) Identify Innovations for Smart Cities – Healthcare & Education**
- 3) Seek Business Opportunities for Inclusive Smart Cities**

Organised by the Smart Cities Network (SCN)

With participants from the UK Department of International Trade (DIT) and Stakeholders from SG and UK

The ASEAN and India Market

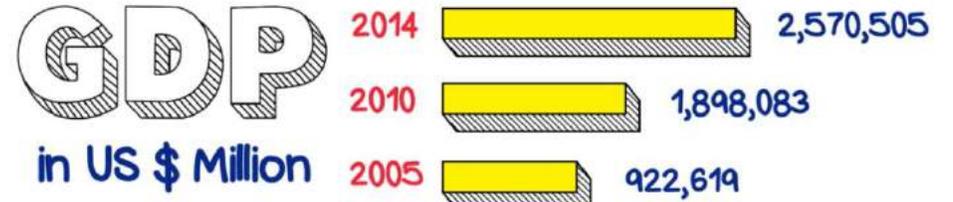
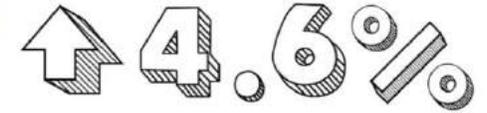
ASEAN is a huge market with a population of 622 million in 2014



Source: <http://www.aseanstats.org/acss-committee/>

ASEAN Economic Growth

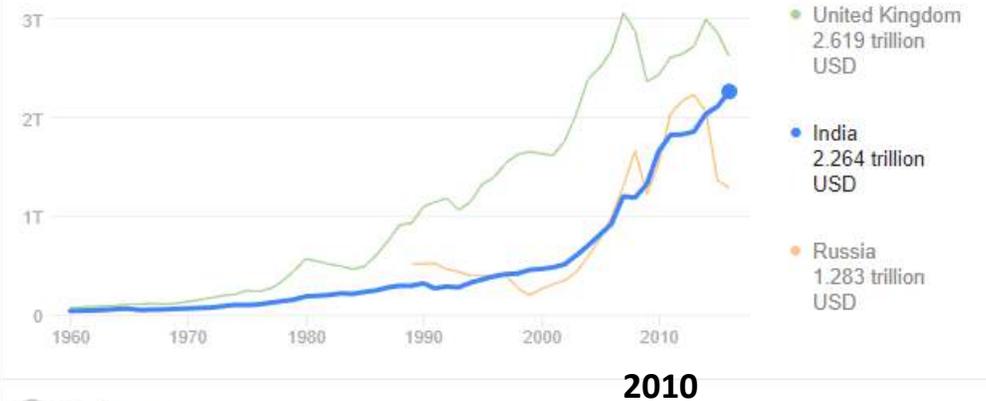
The combined GDP of ASEAN in 2014 is US \$ 2.6 trillion



India / Gross domestic product

India GDP

2.264 trillion USD (2016)



Explore more

Sources include: World Bank

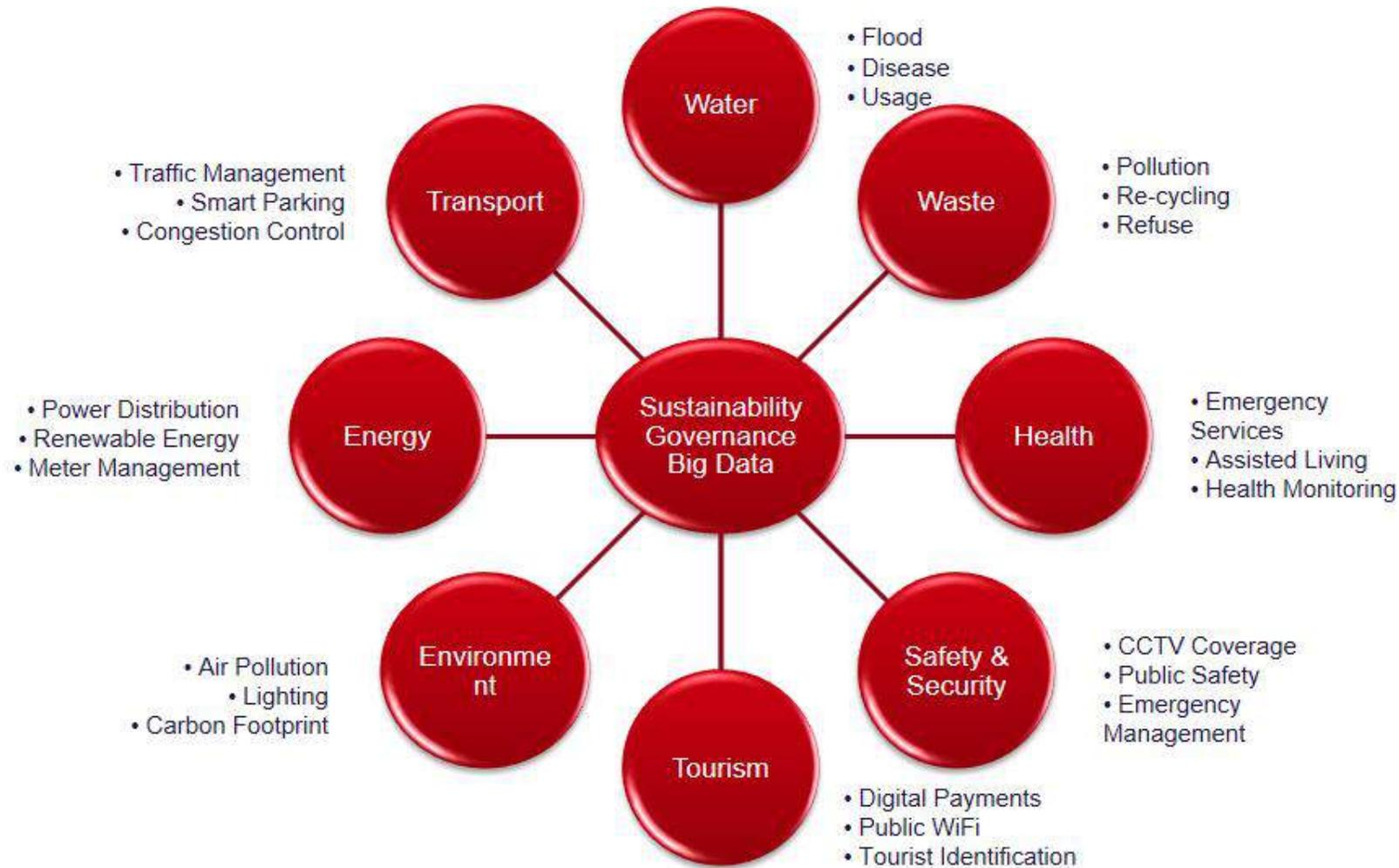
Feedback

ASIA INTERNET USE, POPULATION DATA - JUNE 2017

<u>ASIA</u>	Population (2017 Est.)	Internet Users 30- Jun- 17	Penetration (% Population)
Indonesia	263,510,146	132,700,000	50.40%
Vietnam	95,414,640	64,000,000	67.10%
Philippines	103,796,832	57,607,242	55.50%
Thailand	68,297,547	57,000,000	83.50%
Malaysia	31,164,177	24,554,255	78.80%
Myanmar	54,836,483	13,747,506	25.10%
Singapore	5,784,538	4,699,204	81.20%
Cambodia	16,076,370	4,115,551	25.60%
Laos	7,037,521	1,539,106	21.90%
Brunei Darussalam	434,448	325,836	75.00%
Total ASEAN	646,352,702	360,288,700	
India	1,342,512,706	462,124,989	34.40%

Extracted from: <http://www.internetworldstats.com/stats3.htm#asia>

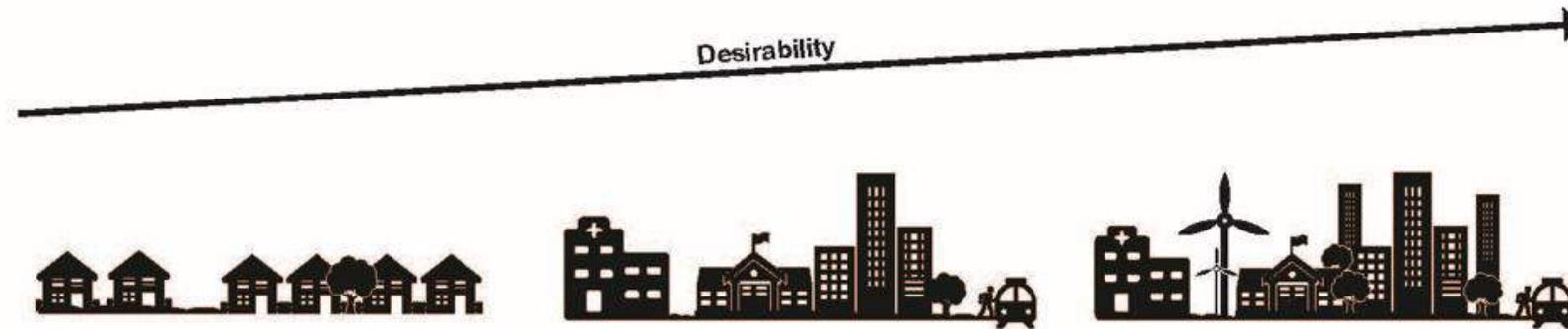
The Concept of a Smart City



Source: UK Department of International Trade, Smart Cities Roundtable, 27-July-2017

Selling UK Tech Capabilities: Smart Cities

The definition of a smart city varies



- Housing
- Basic transport infrastructure
- Sanitation and waste management
- Power
- Clean air and water

Opportunities

- Healthcare
- Education
- Commercial property
- Mass transport infrastructure (air, sea, rail)
- Retail
- Limited tech overlay (basic security, communication)

- Green, open spaces
- Leisure and culture
- Sustainable / Eco development
- High tech overlay (advanced security, interactive services, optimised transport solutions)
- Green power generation
- Smart monitoring
 - macro: city
 - micro: individual properties

Developing

Developed

Future

Source: Broadway Malyan, Smart Cities Roundtable, 27-July-2017

Planning a smart city

5 factors to consider before developing a smart city:

- 1. Context:** what is the level of investment required to address the main needs of the population?
- 2. Governance:** is there the political will and desire to deliver smart cities and are structures in place to ensure that its implementation and operation is properly managed?
- 3. Sound planning:** is there a joined up masterplan or is it a series of smaller plans with no connectivity? What planning policies are in place to support this?

Source: Broadway Malyan, Smart Cities Roundtable, 27-July-2017

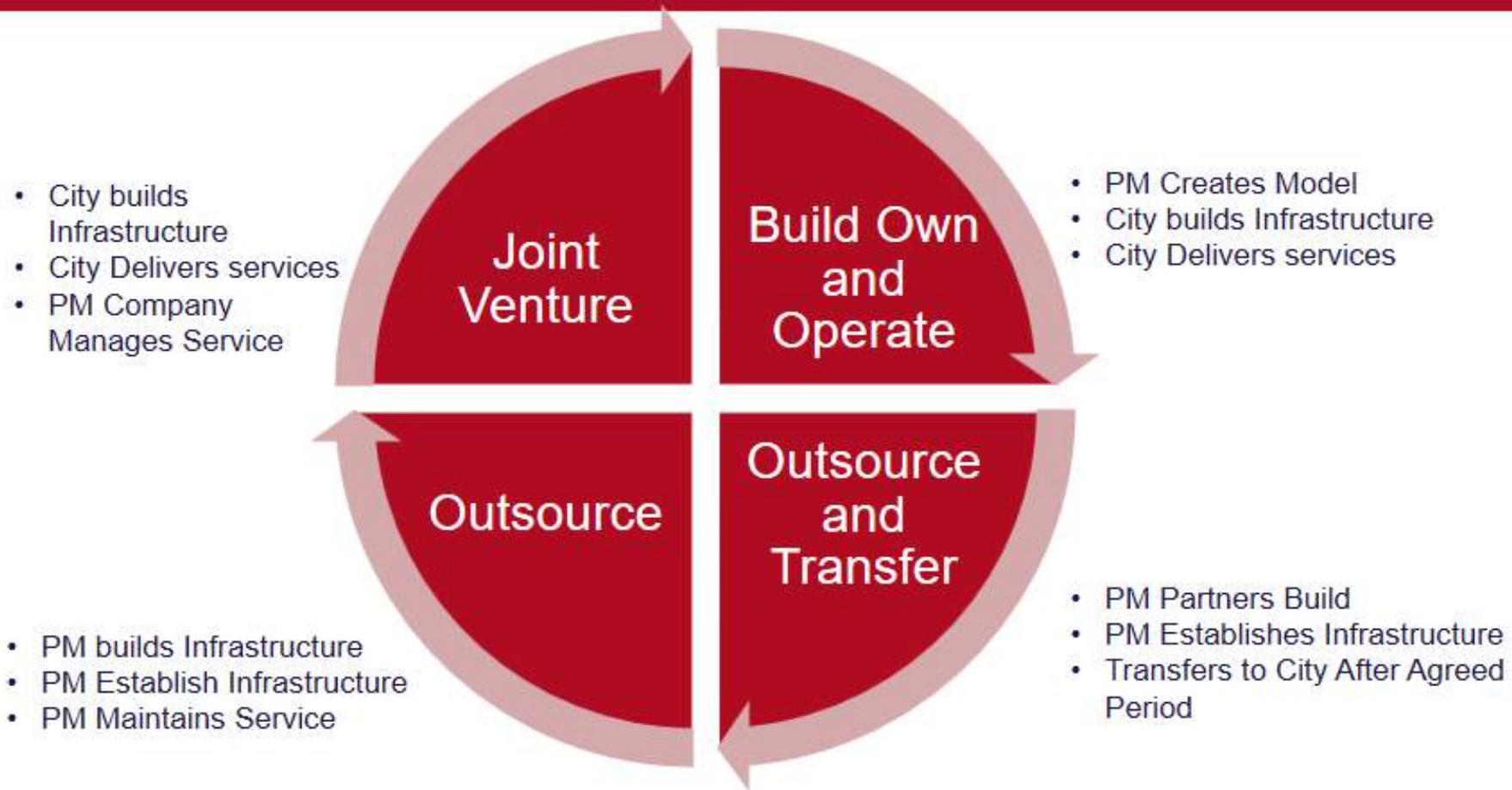
Planning a smart city

4. Relevance: is the right solution being proposed, or does it address a problem that doesn't exist or can be solved in a cheaper, more effective way?

5. Ease of adoption: the ease in which new technologies can be incorporated into the city fabric and the everyday activities of the people who live there will determine success

Source: Broadway Malyan, Smart Cities Roundtable, 27-July-2017

How do you Project Manage a Smart City?



Source: UK Department of International Trade, Smart Cities Roundtable, 27-July-2017

How to measure Return on Investment?

- Job Creation
- Improved Health Services
- Reduced Traffic Congestion
- Increased Security
- Asset Awareness
- Reduced CO2 Emissions
- Integrated City Services
- Destination of Choice
- Economic Growth

Source: UK Department of International Trade, Smart Cities Roundtable, 27-July-2017

Sharing by Supriya Sen
McKinsey
Slides

Sharing by Sunil Narang
SmartMegh
1-Slide Overview

Andhra Pradesh Smart Cities

May 2017

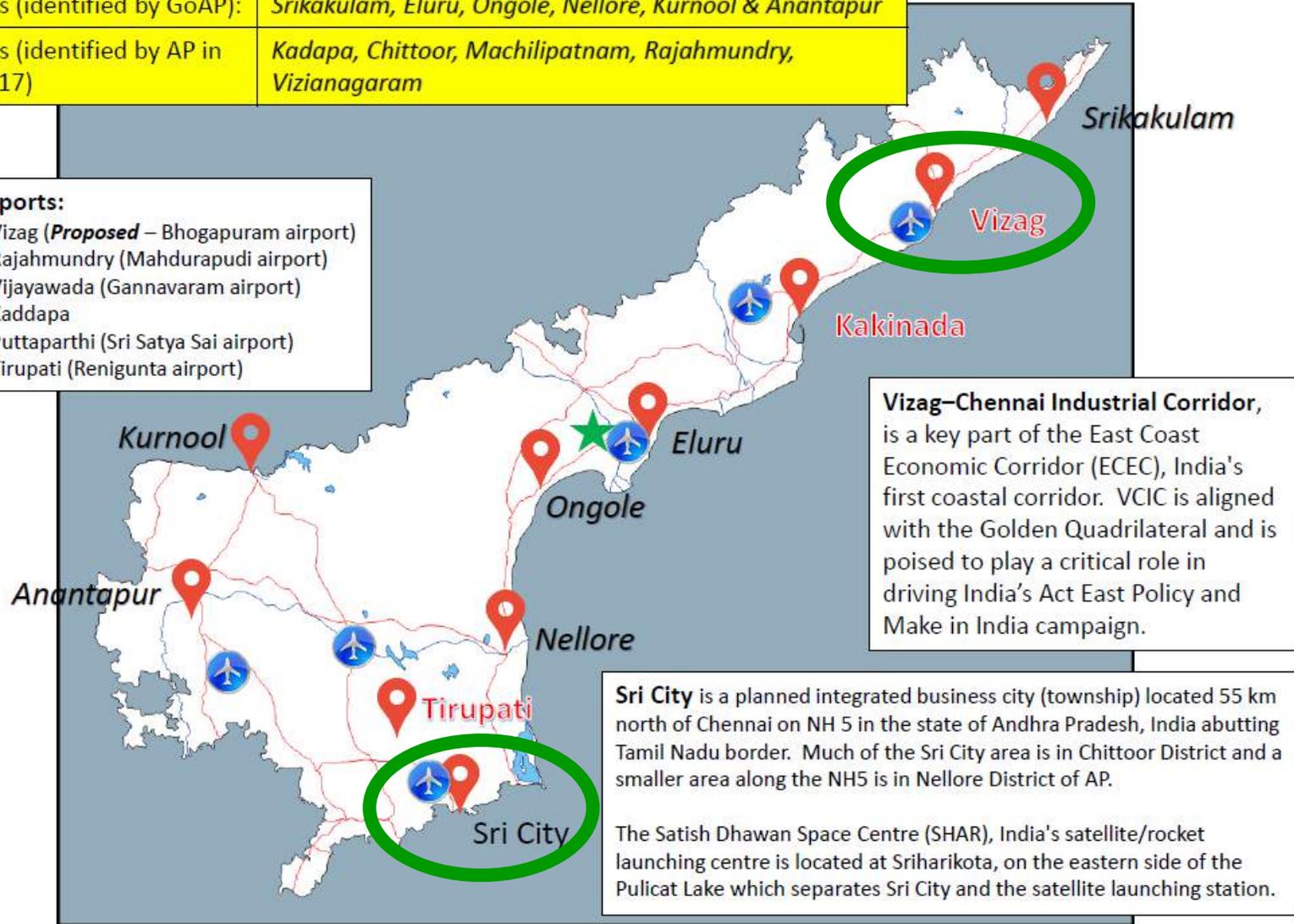
[Video](#)

Source: Public information which was shared by Eric Tan from the Ministry of Trade and Industry (MTI) with Tay Kok Chin, with permission to share in this Smart Cities India Roundtable

3 Smart Cities (listed by Gol):	Vizag, Kakinada, Tirupati
6 Smart Cities (identified by GoAP):	Srikakulam, Eluru, Ongole, Nellore, Kurnool & Anantapur
5 Smart Cities (identified by AP in end Mary 2017)	Kadapa, Chittoor, Machilipatnam, Rajahmundry, Vizianagaram

As at May 2017

- 6 Airports:**
- Vizag (**Proposed** – Bhogapuram airport)
 - Rajahmundry (Mahdurapudi airport)
 - Vijayawada (Gannavaram airport)
 - Kaddapa
 - Puttaparthi (Sri Satya Sai airport)
 - Tirupati (Renigunta airport)



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AP to develop 14 Smart Cities across state

DC CORRESPONDENT
VISAKHAPATNAM, MAY 29

In an effort to decentralise development, the TD government has decided to upgrade 14 cities into Smart Cities. While Visakhapatnam, Tirupati and Kakinada are part of the Centre's Smart Cities Mission, the state will focus on Kurnool, Kadapa, Anantapur, Chittoor, Nellore, Ongole, Machilipatnam, Eluru, Rajahmundry, Vizianagaram and Srikakulam.

Recently, the state government launched special purpose vehicles for implementing its mission in Anantapur, Eluru, Kurnool, Ongole and Srikakulam.

Speaking at the Mahanadu here on Monday, Chief Minister N. Chandrababu Naidu said development should not be confined to the capital Amaravati or major cities such as Visakhapatnam or Tirupati.

"These 14 smart cities will get dedicated indus-

■ **THE STATE** will focus on Kurnool, Kadapa, Anantapur, Chittoor, Nellore, Ongole, Machilipatnam, Eluru, Rajahmundry, Vizianagaram and Srikakulam

■ **VIZAG, Tirupati and Kakinada** will each get ₹500 crore for the next five years

trial park as well as infrastructure. The rate of urbanisation in Andhra Pradesh stands at 29 per cent. Urbanisation accelerates the development of a state and creates more wealth, which has happened in the case of Chennai, Bengaluru, Hyderabad, etc," said Mr Naidu.

Vizag, Tirupati and Kakinada will each get ₹500 crore for the next five years from the Centre, and the state government give an equal matching grant. These cities will go for PPP mode for some projects, while the government will undertake some projects.

For the state-sponsored Smart Cities, funds for the development of these cities will be solely spent by the state government.

Government whip Kuna Ravi Kumar explained that the Smart City proposals in Vizag with an estimated cost of about ₹1,584 crore and in Tirupati at an estimated cost of ₹1,610 crore primarily focussed on the IT component, e-governance and physical and social infrastructure.

"Vizag will get smart schools, 24x7 water supply, public bike sharing, e-rickshaws, efficient urban mobility, disaster management, etc. The area surrounding the airport in Tirupati is being developed into an IT hub and the city will have a waste-to-energy plant. Orvakal in Kurnool district will get an industrial hub in more than 10,000 acres. Piped gas network, science centre, solar rooftops, e-schools are part of the smart city proposals in Kakinada," said Mr Ravi Kumar.

While Visakhapatnam, Tirupati and Kakinada are part of the Centre's Smart Cities Mission, the state will focus on Kurnool, Kadapa, Anantapur, Chittoor, Nellore, Ongole, Machilipatnam, Eluru, Rajahmundry, Vizianagaram and Srikakulam.

May 2017

Vizag, Tirupati and Kakinada will each get Rs 500 crore (approx. SGD 100 million) over the next five years from the Centre, and the state government will give a matching grant.

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Sharing by Eric Tan
Ministry of Trade and Industry
Slides

Sharing by Howard Roberts
Mott Macdonald
Slides

Sharing by Kamal Kashyap
HP Enterprise India
Slides

Dialogue Session

***How to check level of readiness?
Activities for Business Development
How to generate business pipeline?
Sales Engagement & Closure
Maintenance & Support***

Thank You

Contact Details

TAY Kok-Chin (KC)

kokchin@gmail.com

+65 9822 4345