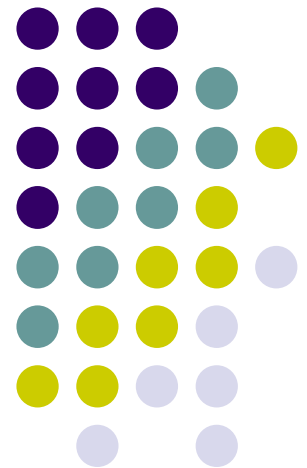**1**

Pati Smart City

Bayu Setyatmoko, ST., MT., MTCNA, CEH

(Email : bayusetyatmoko@gmail.com)

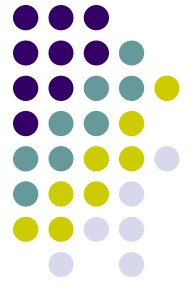**Bidang Persandian Diskominfo Pati**

Pati, 22 Nopember 2017

Smart City - The ITU-T

"A smart sustainable city (SSC) is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental aspects"

https://www.itu.int/en/ITU-T/focusgroups/ssc/Documents/Approved-Deliverables/TR-Definitions.docx

Smart City - Byod Cohen

A "smart city" is one that exploits technology and innovation to make efficient use of resources and reduce the size of the ecological footprint. This idea is here to stay. The term has a technological origin, but it is also a question of being innovative. What services can be offered to citizens to increase their quality of life? Technology is just one aspect. A high-tech city is not necessarily a smart city. Many urban planners have realised that cities are about people not technology. I don't know whether the term "smart city" will endure. Perhaps it will become "future city" or "innovative city", but the idea is the same.

SMART CITY = LIVEABLE CITY
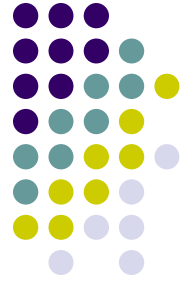
Intelligent city

• Applications of ICT in the communication between city management and local residence

- ensure to give and get information

- e-administration

Smart city

• ICT as city management tool

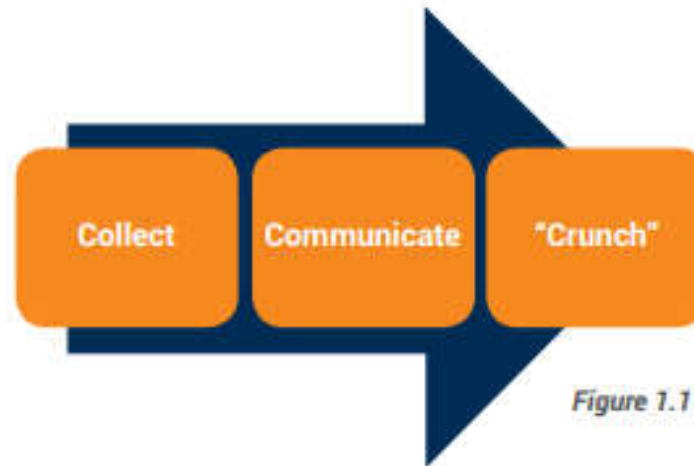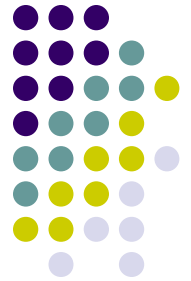STRATEGY, SUSTAINABILITY, COST-EFFECTIVENESS, RELIABILITY, TRANSPARENCY, COOPERATION

Smart City Version

- Smart Cities 1.0 :

  Technology Driven

- Smart Cities 2.0 :

  Technology Enabled, City-LED

- Smart Cities 3.0 :

  Citizen Co-Creation

3 Core Function of Smart City

Collect | Communicate | "Crunch"

Figure 1.1

1 Collect
information about current conditions across all responsibility areas (power, water, traffic, weather, buildings, etc.).

2 Communicate
information, sometimes to other devices, sometimes to a control center and sometimes to servers running powerful software.

2 Crunch
data, analyzing it to present information, to perfect (optimize) operations and to predict what might happen next.

Evolution of Smart City Definition

Evolution of Smart City Definitions

Source: Smart Cities Council (2015).
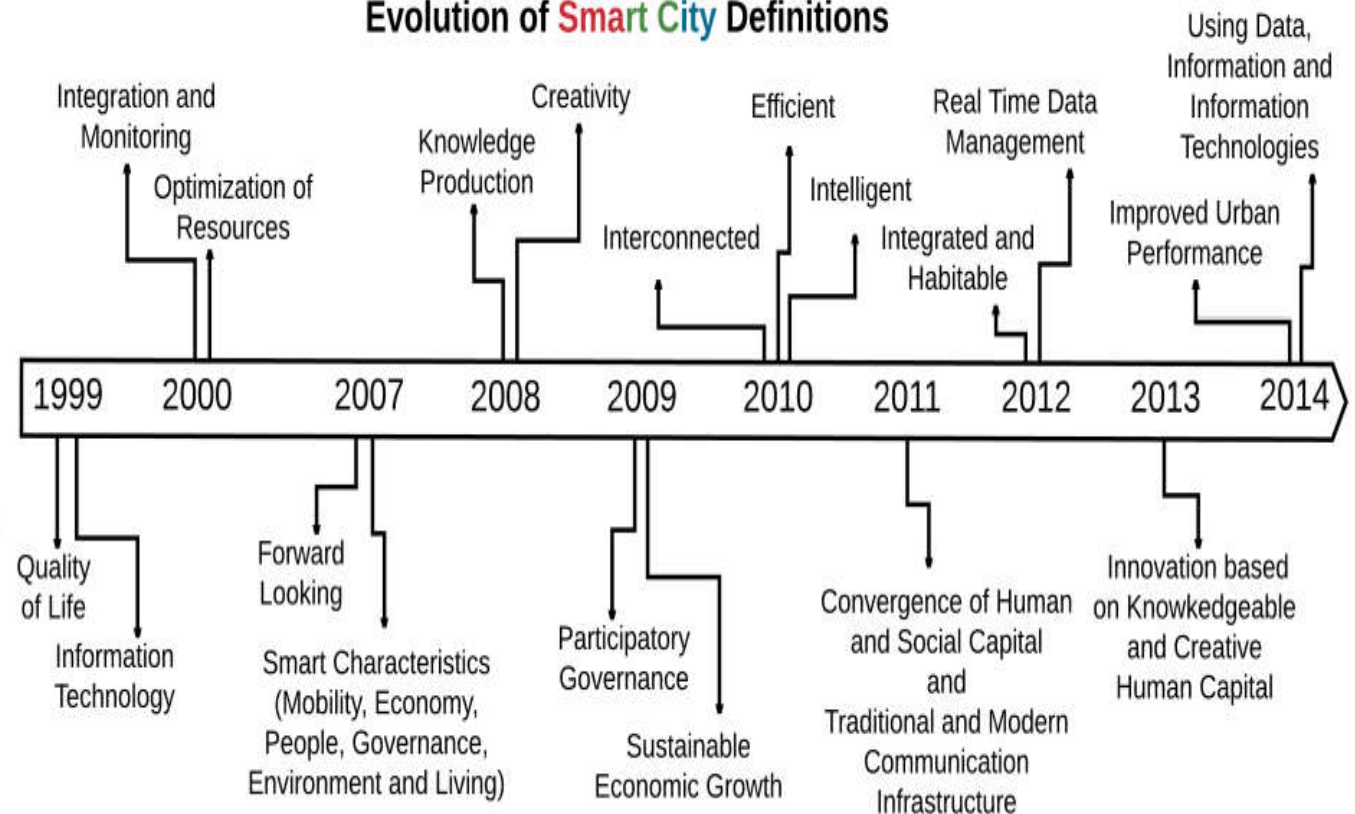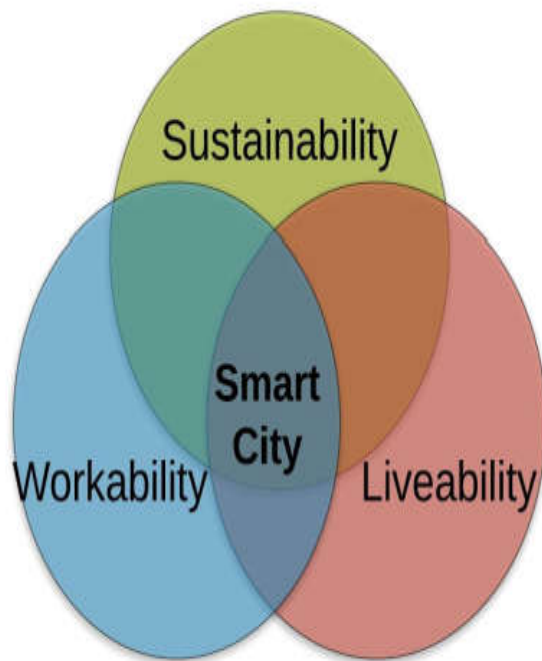
Smart City Wheel (Cohen, 2012)

Smart City Wheel - Explain
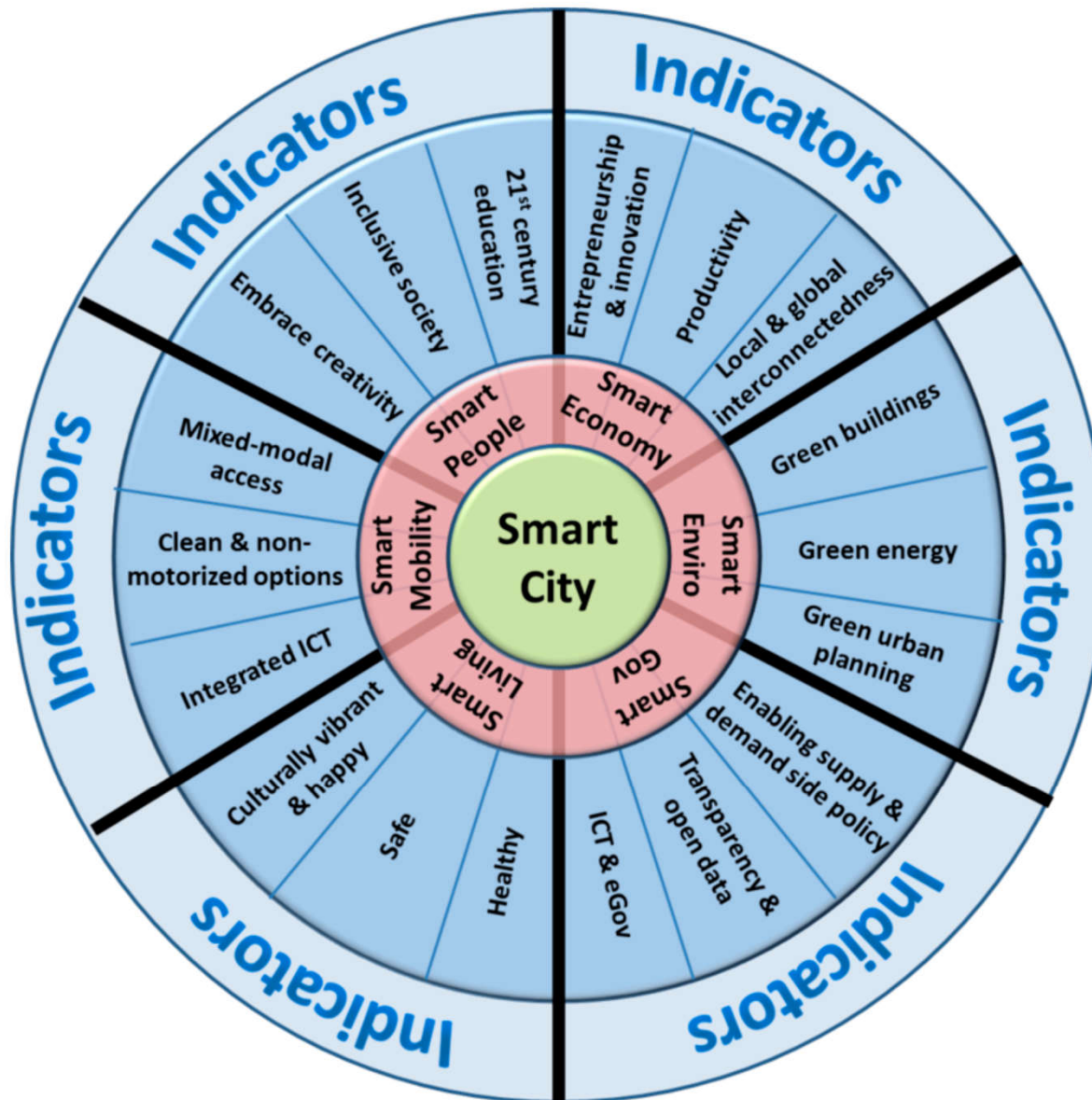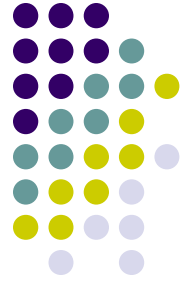
- **Smart Economy**

  Pengembangan teknolgi baru utk meningkatkan ekonomi lokal

  dapat bersaing dengan ekonomi global

- **Smart Mobility**

  Peningkatan efisiensi dan kualitas layanan transportasi publik.

- **Smart Environment**

  Implementasi "green urban planning" melalui TIK

- **Smart Citizen**

  Pengembangan SDM melalui inovasi teknologi TIK

- **Smart Living**

  Peningkatan kualitas hidup warga melalui pemanfaatan TIK

- **Smart Government**

  Peningkatan akuntabilitas & keterbukaan kebijakan pemerintah.

Smart City Maturity Model

Optimized

Managed

Repeatable

Opportunistic

Ad hoc

Ad hoc, department-based planning and discrete projects

Opportunistic project deployments; proactive collaboration within and between departments; key stakeholders aligned around beginning strategy; barriers to adoption identified
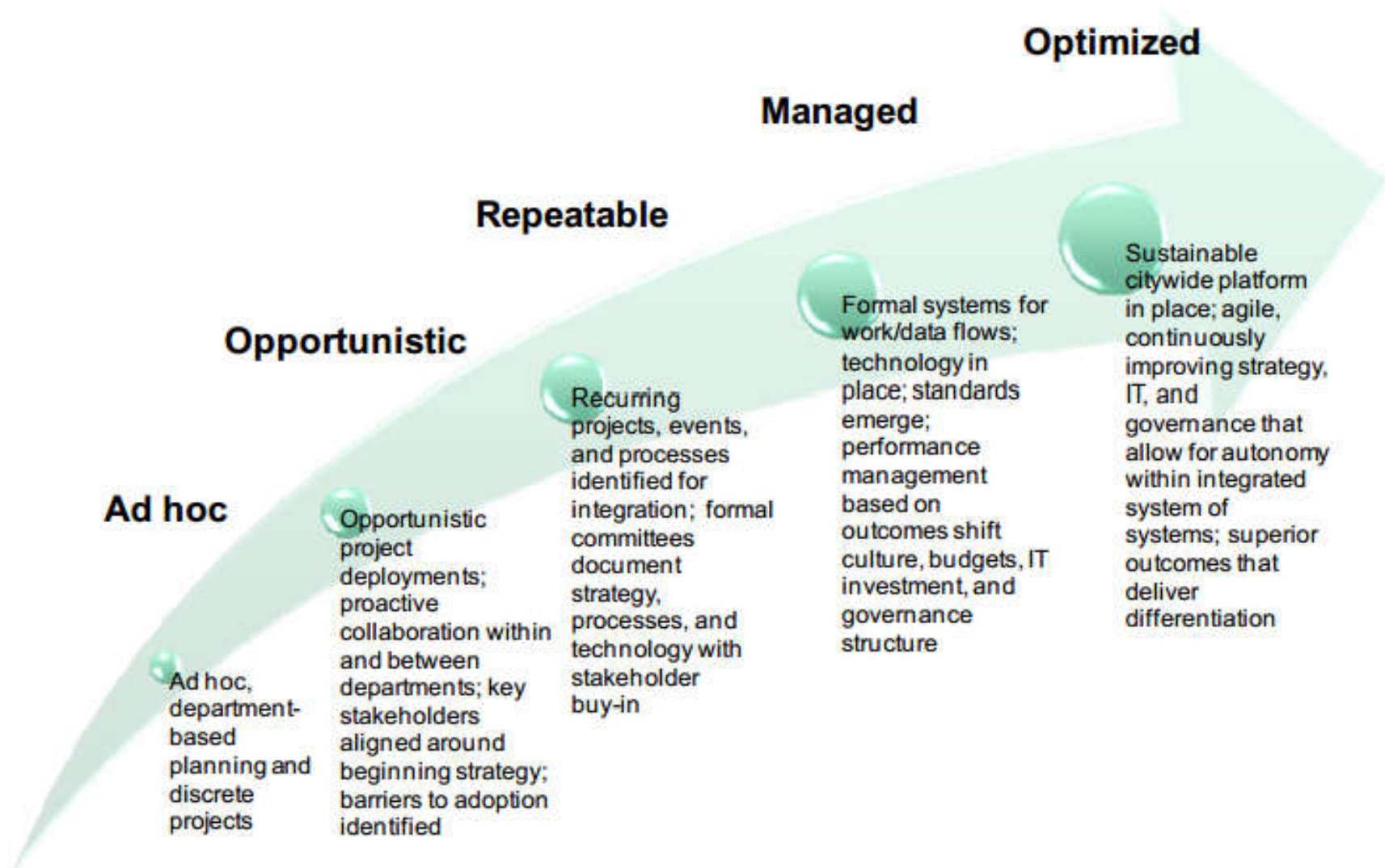
Recurring projects, events, and processes identified for integration; formal committees document strategy, processes, and technology with stakeholder buy-in

Formal systems for work/data flows; technology in place; standards emerge; performance management based on outcomes shift culture, budgets, IT investment, and governance structure

Sustainable citywide platform in place; agile, continuously improving strategy, IT, and governance that allow for autonomy within integrated system of systems; superior outcomes that deliver differentiation

Source: IDC Government Insights, 2013

Smart City Maturity - Explain

	Ad hoc	Opportunistic	Repeatable	Managed	Optimized
Key characteristic	Siloed	Intentional	Integrated	Operationalized	Sustainable
Goal	Tactical services delivery	Stakeholder buy-in	Improved outcomes	Prediction and prevention	Competitive differentiation
Outcome	Proof-of-concept and business case development via ROI from pilot projects	Cross-organization deployments and development of foundational strategy and governance	Repeatable success in project process and outcomes across multiple organizations	Enterprisewide strategy, process, data, and so forth bring improved service delivery via adaptive sense-and-respond systems	Agility, innovation, and continuous improvement in service delivery bring competitive advantage

Case Study - Indian

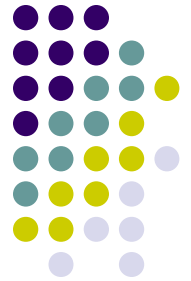| TRADITIONAL	INDIAN CITY	SMART
Unplanned and Disorganized	PLANNING	Coordinated, Holistic and Sustainable
Poorly Interconnected	INFRASTRUCTURE	Highly Systematic
Minimal / Limited	CITIZEN PARTICIPATION	Two-way Communication between Government and People
Isolated, Unsystematic and Fragmented	SOLUTION PROVIDED	Centrally Planned, Deployed across City Departments and Projects
Ineffective Management and Increased Costs	RESOURCE UTILIZATION AND COSTS	Optimal Resource Utilization with Cost-Effective technologies
High level	TRAFFIC CONGESTION AND POLLUTION	Improved Traffic Management and Low Pollution
Negligible Sharing and Poor Coordination	DATA SHARING AND COORDINATION BETWEEN GOVERNMENT DEPARTMENTS	Improved Sharing and better Coordination

Indian Smart City Framework

PHYSICAL	SOCIAL	ECONOMIC	INSTITUTIONAL
Multi-modal Public Transportation	Inclusive Development: Affordable Housing, Night Shelters, etc.	Skill Development Centers	Minimum Government, Maximum Governance
24*7 Power Supply	Quality Education in all Neighborhoods	Incubation Centers	
Zero Emission: Solid and Liquid Waste	Health Care in all Neighborhoods: Tele-Medicine	Trade Facilitation and Logistics Centers	E-Governance-24*7 Online Public Service Delivery
Assured and Metered Water Supply	Entertainment and Recreational Facilities	Small and Medium Manufacturing Enterprise Clusters	Citizen Engagement
High-Speed Broadband Connectivity	Cultural, Sports and Fitness Centers	Finance Centers and Services	Safety, Security and Enforcement
		Working Women Hostels and Crèches	Disaster Management and Resiliency

Source: UK Trade and Investment (2015).

Sumber Referensi (1)
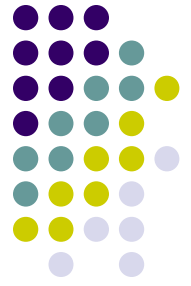
(1). The Emergence of the Urban Entrepreneur,

    Boyd Cohen (2016)

(2). The Way Out, Byod Cohen (2012)

(3). Climate Capitalism, Boyd Cohen (2011)

(4). https://www.fastcompany.com/user/boyd-cohen

(5). https://www.fastcompany.com/3038818/the-smartest-cities-in-the-world-2015-methodology

(6). https://www.fastcodesign.com/1680538/what-exactly-is-a-smart-city

Sumber Referensi (2)

(7). https://smartcitiescouncil.com/resources/smart-city-index-master-indicators-survey

---- Smart City 2014 Index Master Indicators Survey

---- Smart City Self Assesment / Benchmark (62 indicators)

(8). https://www.iso.org/standard/62436.html

---- ISO 37120:2014 (Sustainable development of communities,

---- Indicators for city services and quality of life).

Sumber Referensi (3)

(9). http://www.innovation-cities.com/innovation-cities-index-2016-2017-global/9774

---- City innovation 10th rankings, 2016-2017 (192 indicators).

---- 1.London, 2.New York, 3.Tokyo, 4.San Francisco, 5.Boston

---- 6.Los Angeles, 7.Singapore, 8.Toronto, 9.Paris 10.Vienna

---- 11.Seoul, 12.Amsterdam, 13.Barcelona, 14.Sydney, 15.Munich

---- 28.Dubai, 30.Beijing, 90.Mumbai, 92.Kuala Lumpur, 218.Jakarta

Terima Kasih

"Smart City needs a lot of Smart and Innovative People"