Invent, Innovate, Impact

Broadband Ecosystem Smart City

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LPiK ITB
Lembaga Pengembangan Inovasi dan Kewirausahaan

Content

- Background
- Smart city concept
- Smart City model
- Smart City Implementation

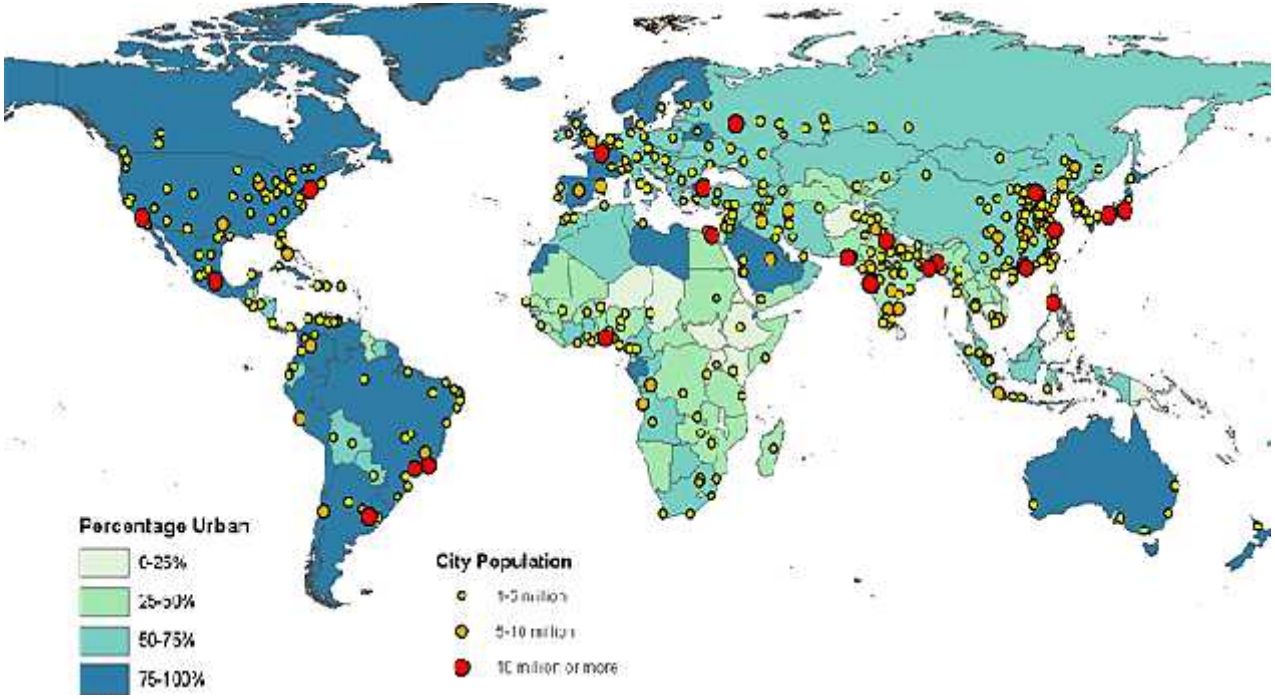
Background

Percentage of urban population and agglomerations by class size, 2011

http://esa.un.org/unup/Maps/maps_urban_2011.htm , ieeesmartcities.org

There is a worldwide trend toward Smart Cities as shown by the following:

- Half of the world population is living in cities in 2013
- Half of the population of Asia will be living in cities by 2020
- Half of the population of Africa will be living in cities by 2035
- Population in cities is expected to grow from 3.6 Billion to 6.3 Billion by 2050.
- Over 50% of urbanization involves cities of less that 500K people



City Problem

KEMACETAN
Transportasi Umum

PERSEDIAAN
Distribusi Bahan Pangan, Obat

KECELAKAAN
Kejadian dan peristiwa

BIAYA DAN KETERSEDIAAN
Fasilitas kesehatan dan Pendidikan

BENCANA ALAM
Gempa Bumi

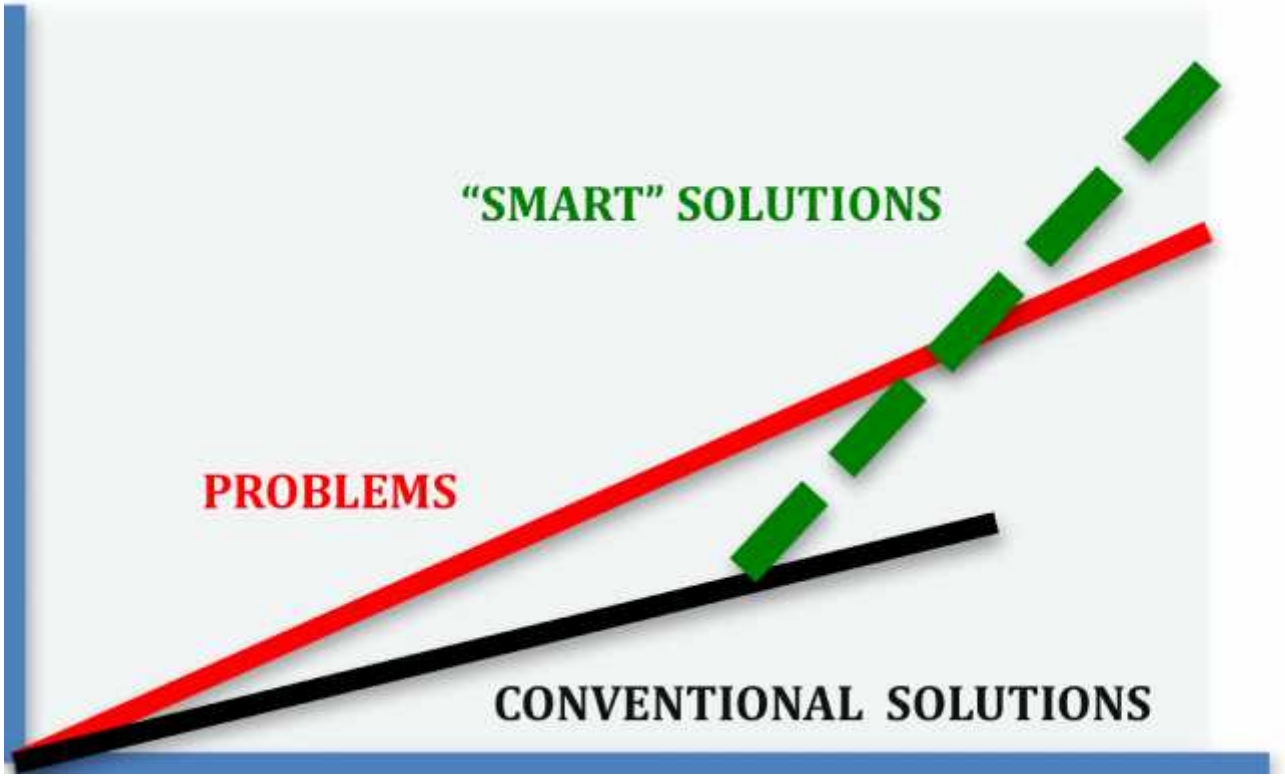
RUANG TERBUKA
Sampah, Kumuh, Polusi Udara

PUNGLI
PKL, Perijinan

SENTIMEN MASYARAKAT
Media Sosial, Harga Bahan Pokok

PENYAKIT EPIDEMIK

Problem vs Solutions



Momentum of Technology Development

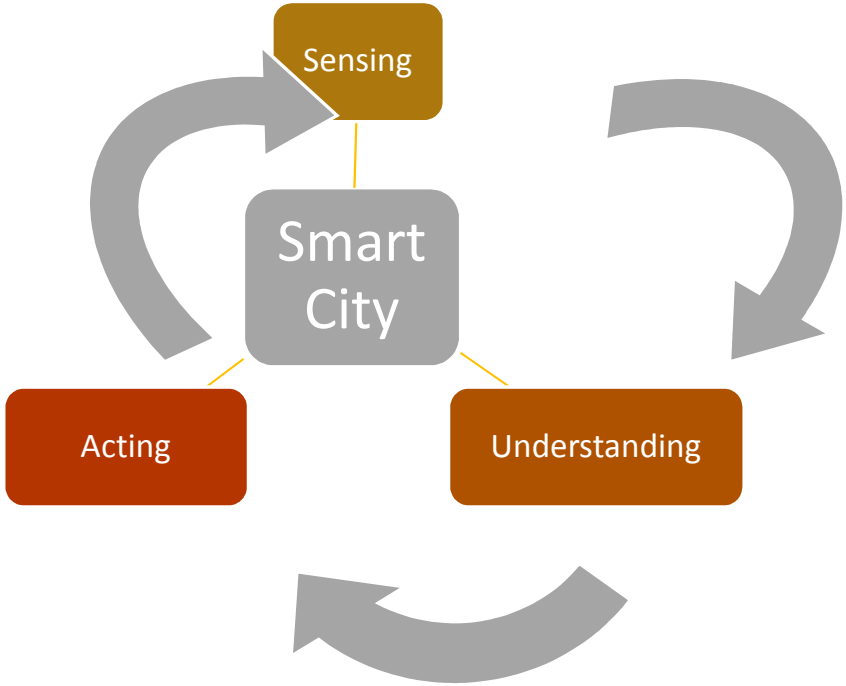
- Broadband Connectivity and Capability
- IoT
- M2M
- Sensor Technology
- Cloud Technology
- Big Data Technology

----------→ Time to Conider Broadband Ecosystem

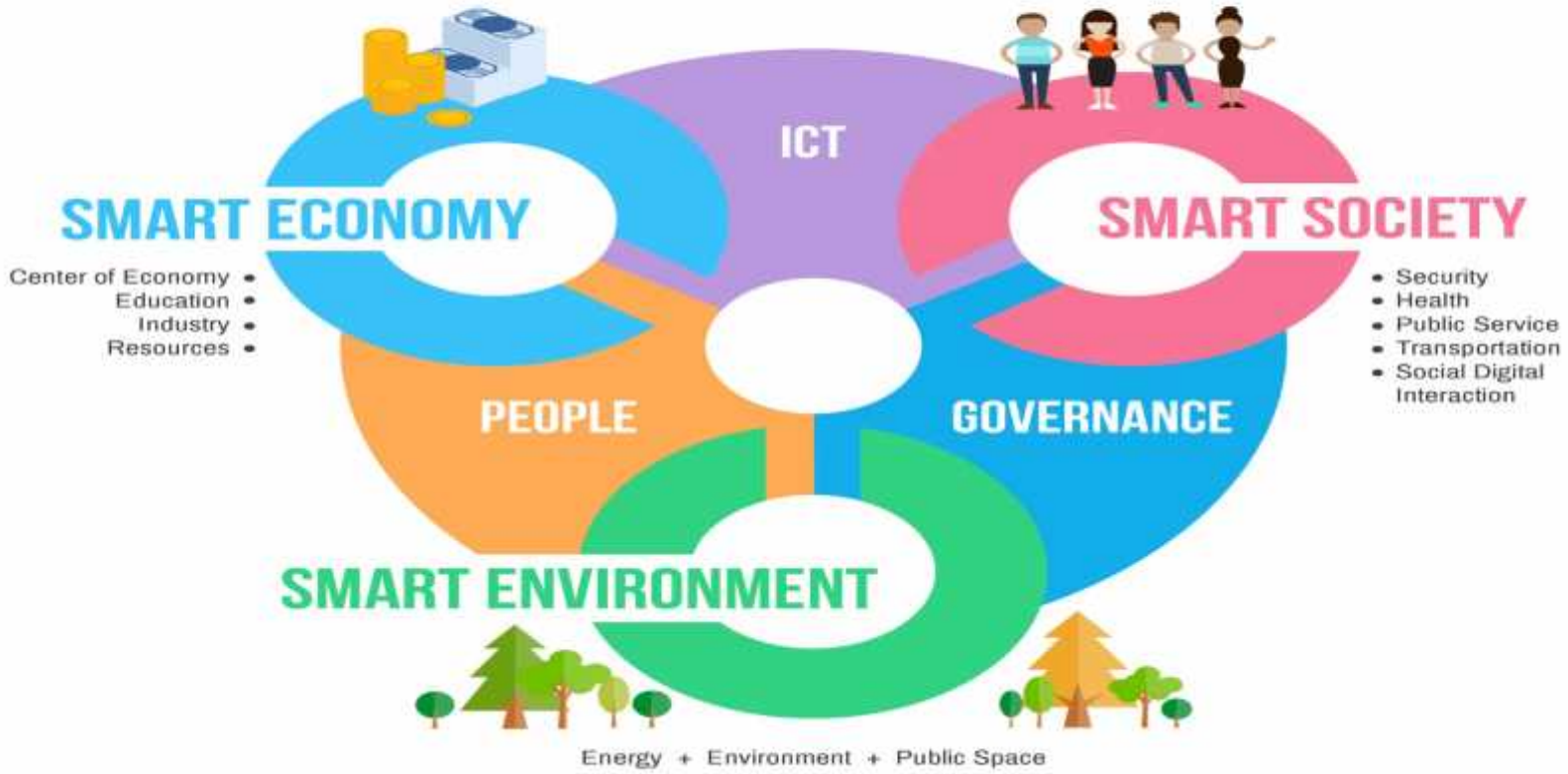
Smart City Concept

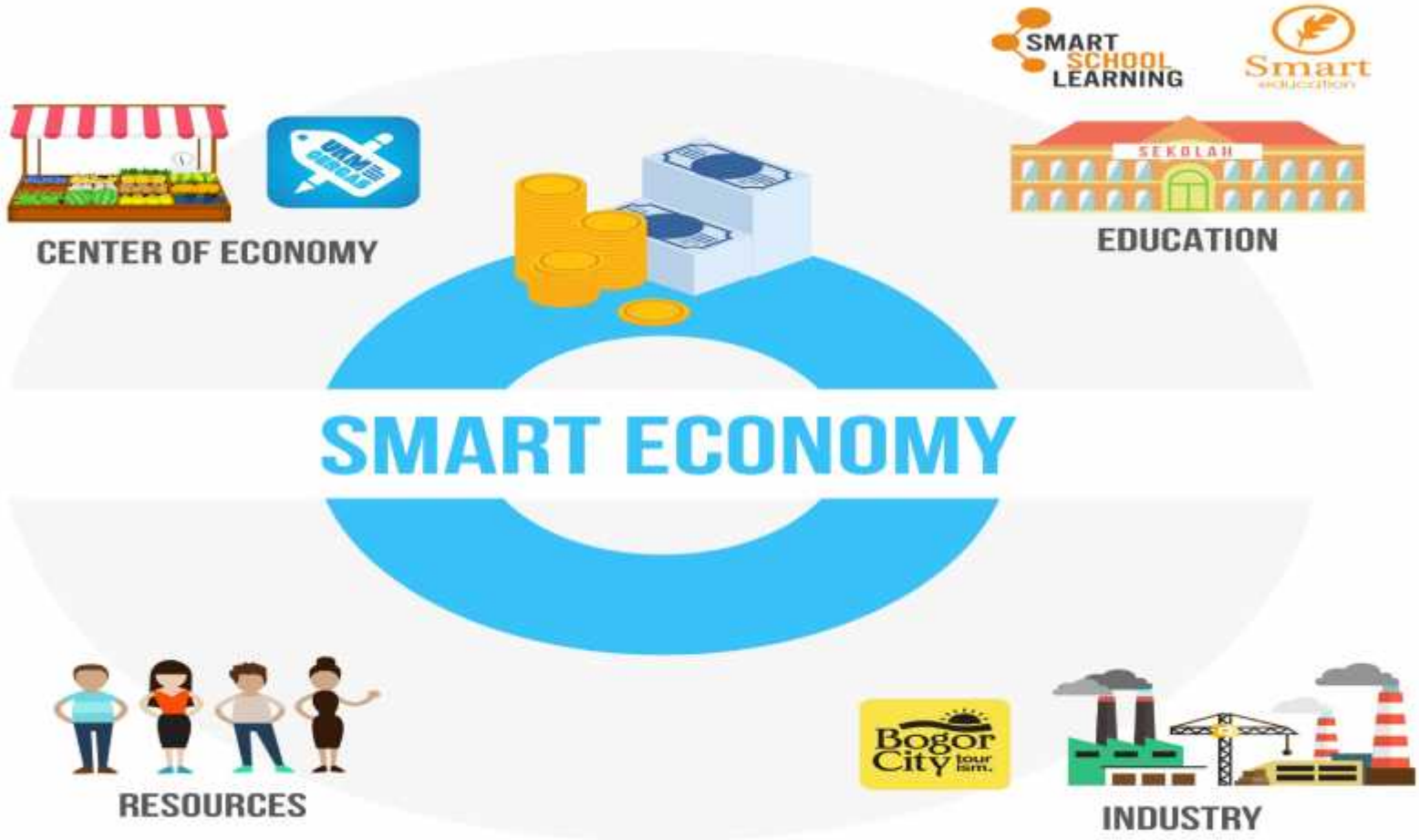
Smart City Concept

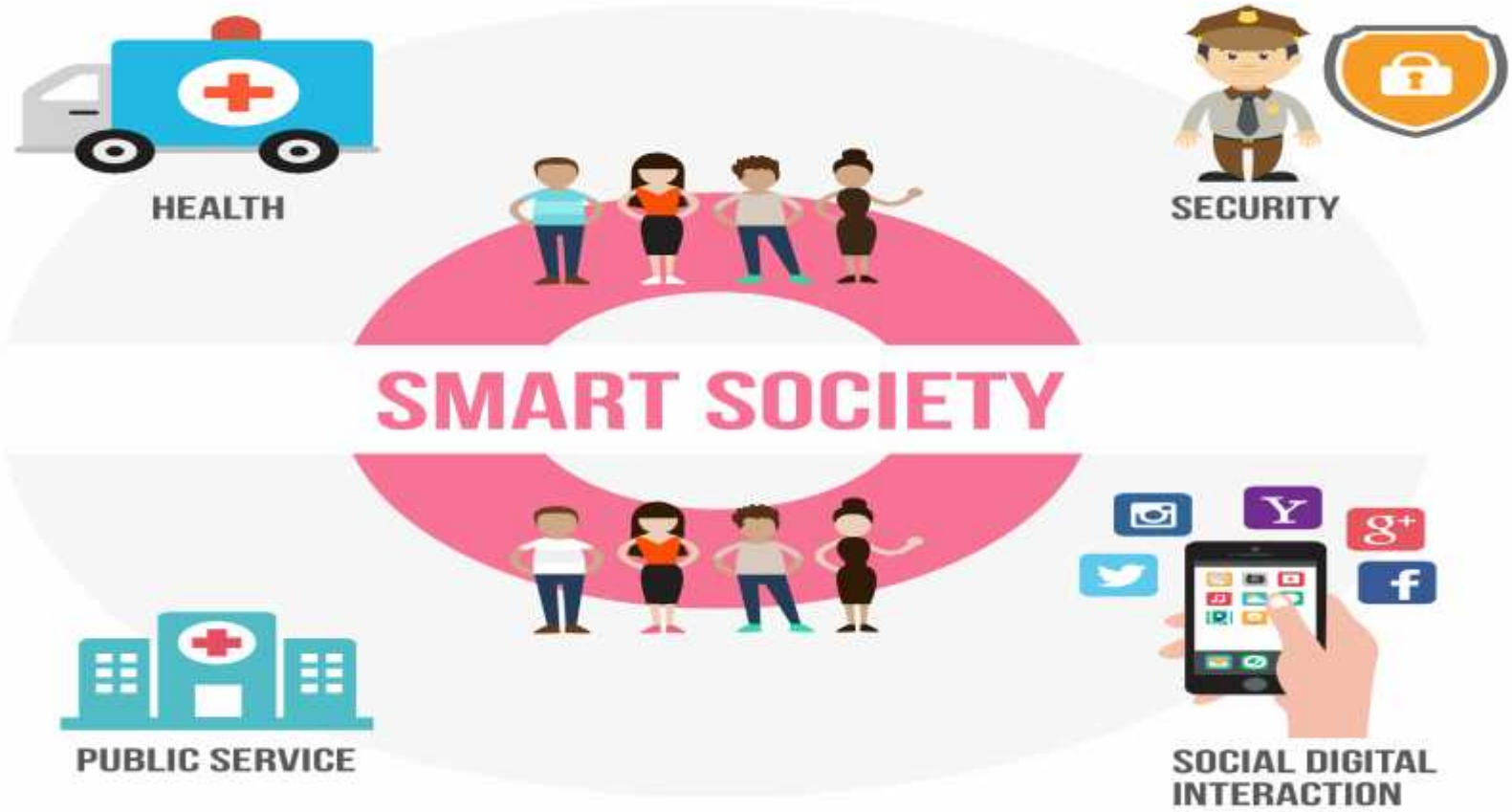
Smart city is a city which can manage its resources (natural and human) efficiently and Effectively in order to achieve high livability , comfort and sustainable development. To achieve such goals, ICT as an enabler is a necessity



GARUDA SMART CITY MODEL

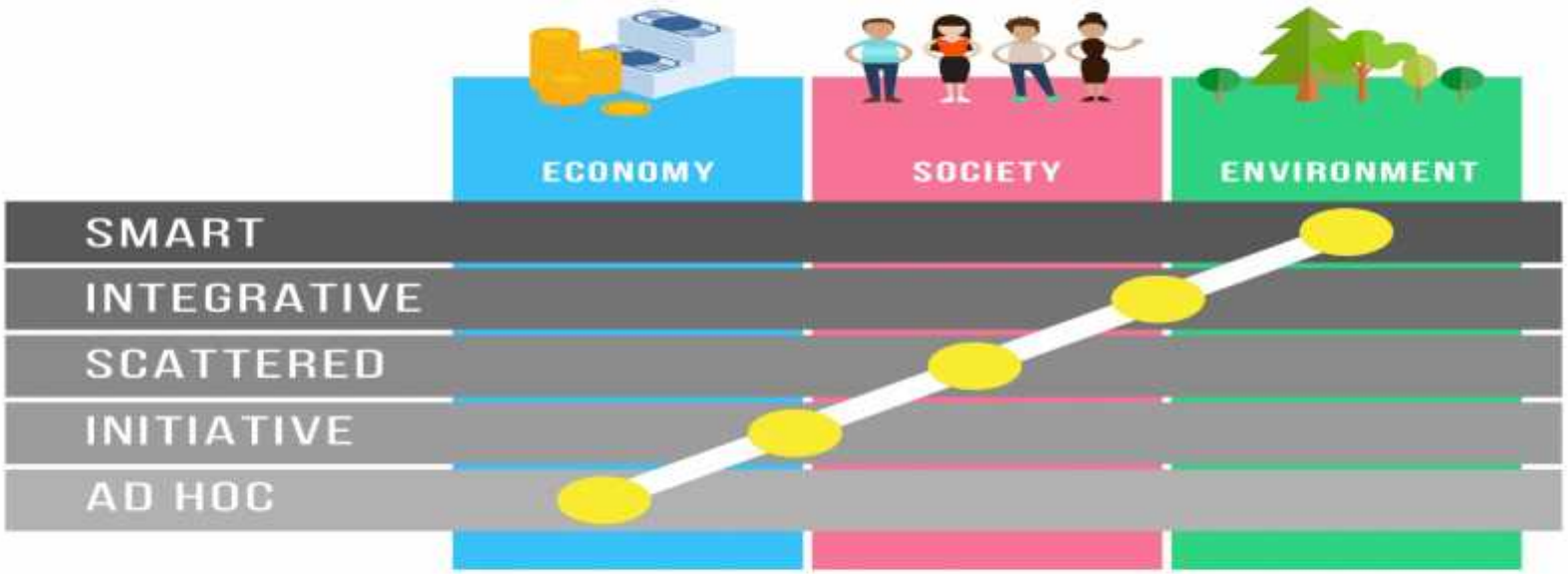



SMART SCHOOL LEARNING
Smart education
SEKOLAH
EDUCATION
CENTER OF ECONOMY
SMART ECONOMY
RESOURCES
Bogor City tour ism.
INDUSTRY


HEALTH
SECURITY
SMART SOCIETY
PUBLIC SERVICE
SOCIAL DIGITAL
INTERACTION

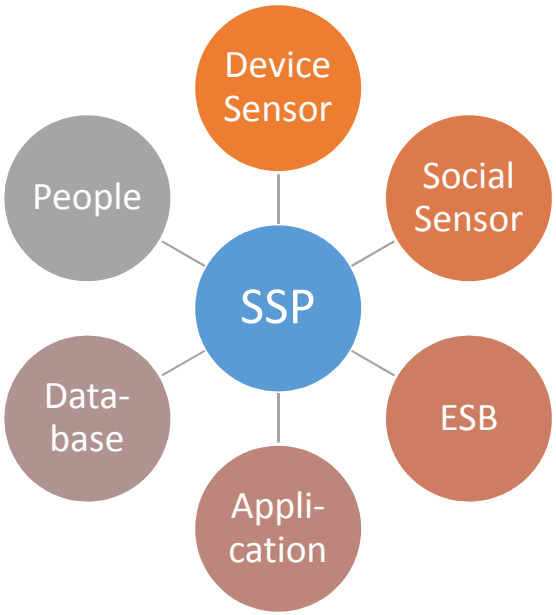
ENERGY
ENVIRONMENT
SMART ENVIRONMENT
PUBLIC SPACE

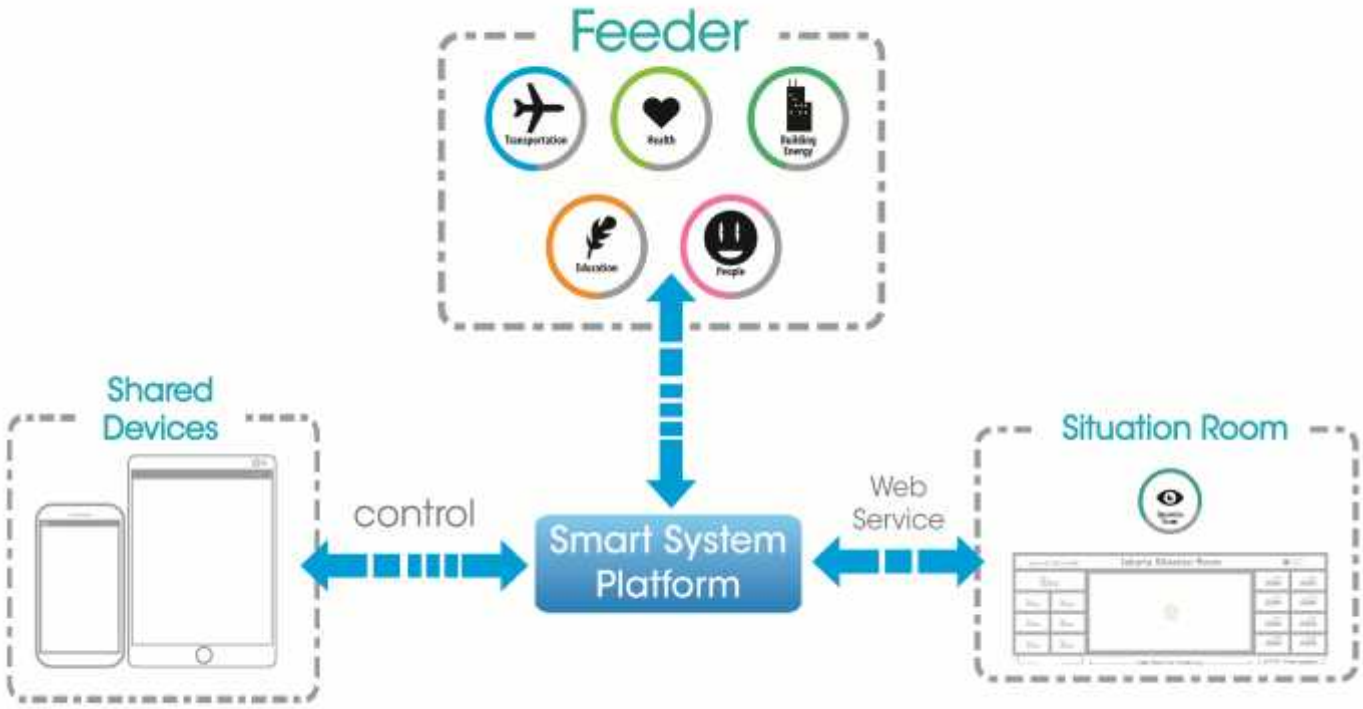
Smart City Maturity Model



Smart City Platform

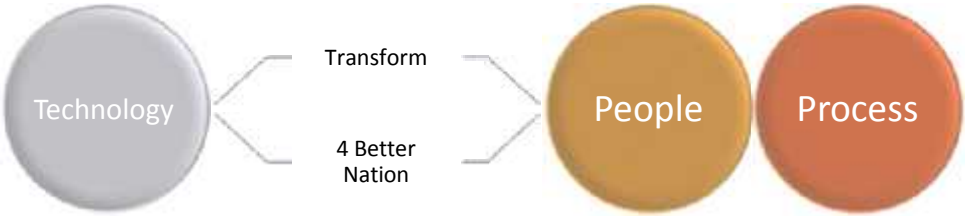
Smart System Platform





Smart System Platform

Platform Ekosistem Cergas:
Teknologi, Proses dan Manusia



Smart System Platform menyediakan konektivitas terhadap berbagai solusi layanan

Smart System Sevices, Broadband Ecosystem

Collaboration , Service and Connectivity

Reporting and City Dashboard

Event Monitoring Location Based Service

Geospatiol Contextual

Smart City Implementation

Smart city Implementation

- GSCM Implementation

Balikpapan

Banyuwangi

Sleman

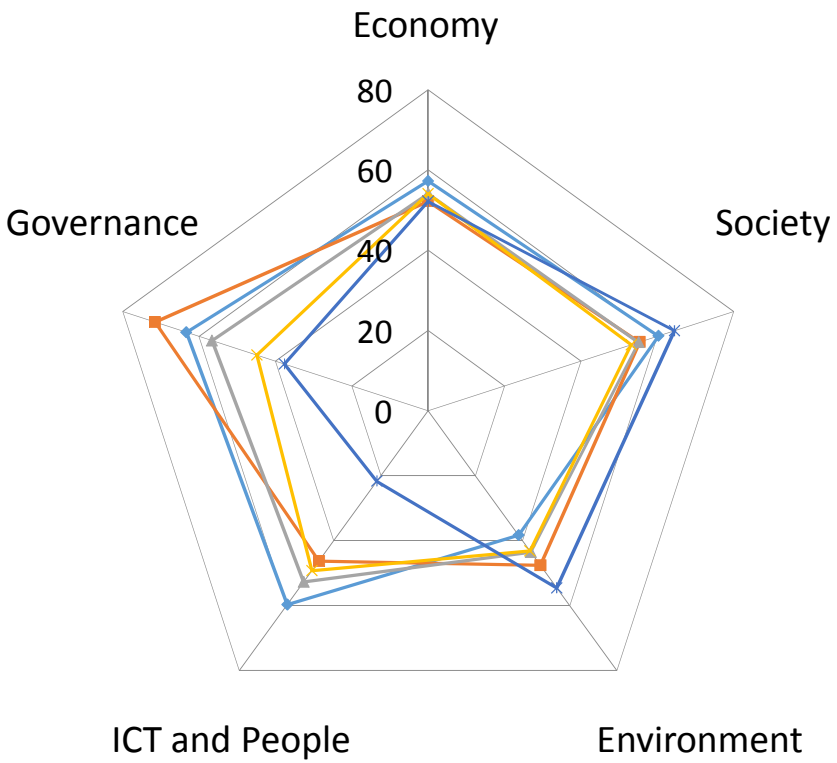
Bandung

Banda Aceh

- Smart System Services Implementation

Bogor

GSCM Implementation



Cities	Score	Maturity Level
Banyuwangi	46.098	Scattered
Banda Aceh	57.19	Scattered
Balik papan	54.350	Scattered
Bandung	54.150	Scattered
Sleman	48.906	Scattered

Indonesian Smart City Indexes

Smart City Platform and Services Implementation

- GPS sensor
- CCTV
- Crowd source

- City Analytics
- GIS
- SSP

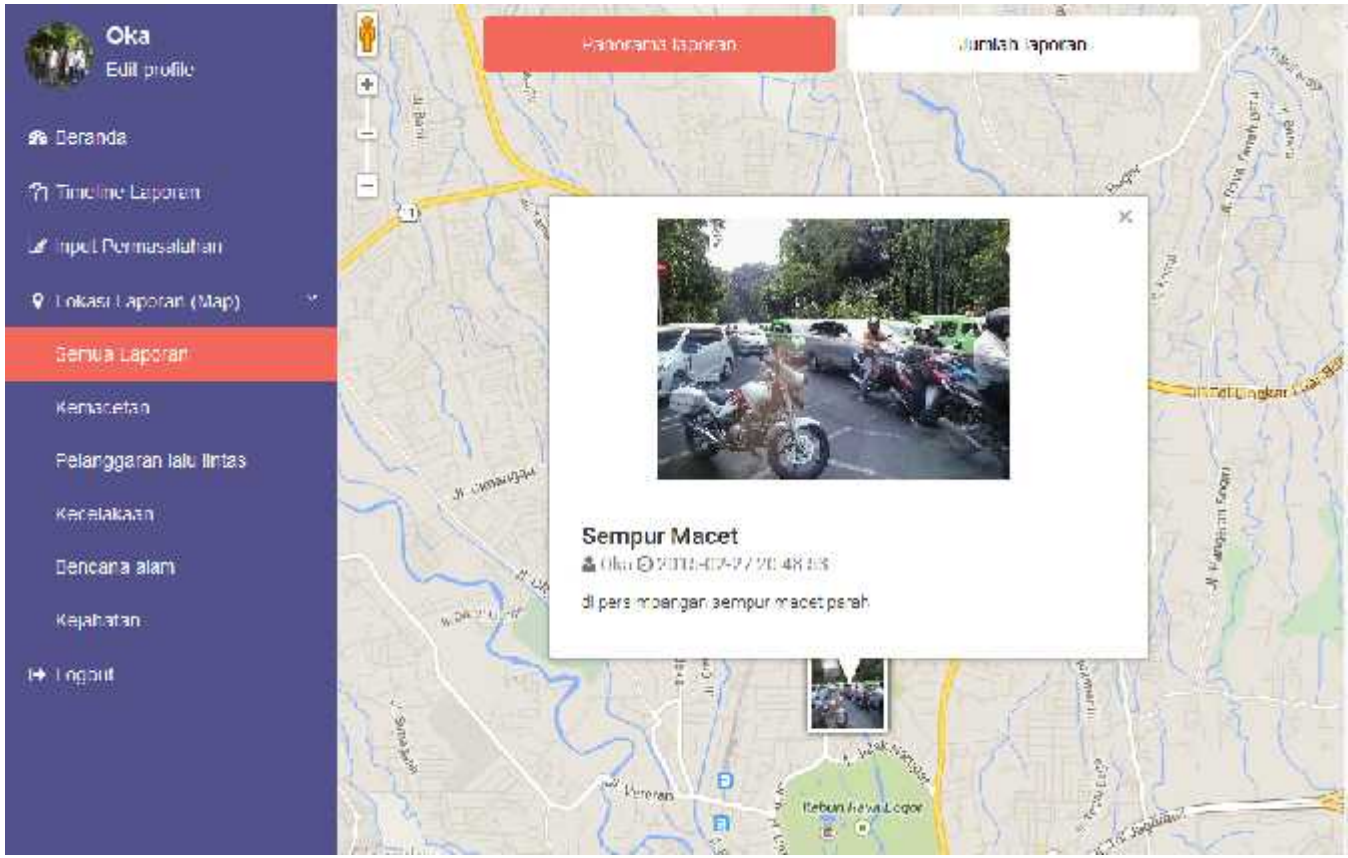
- Operation Room
- Digital Signage
- Mobile Apss

Bogor Green Room Launching

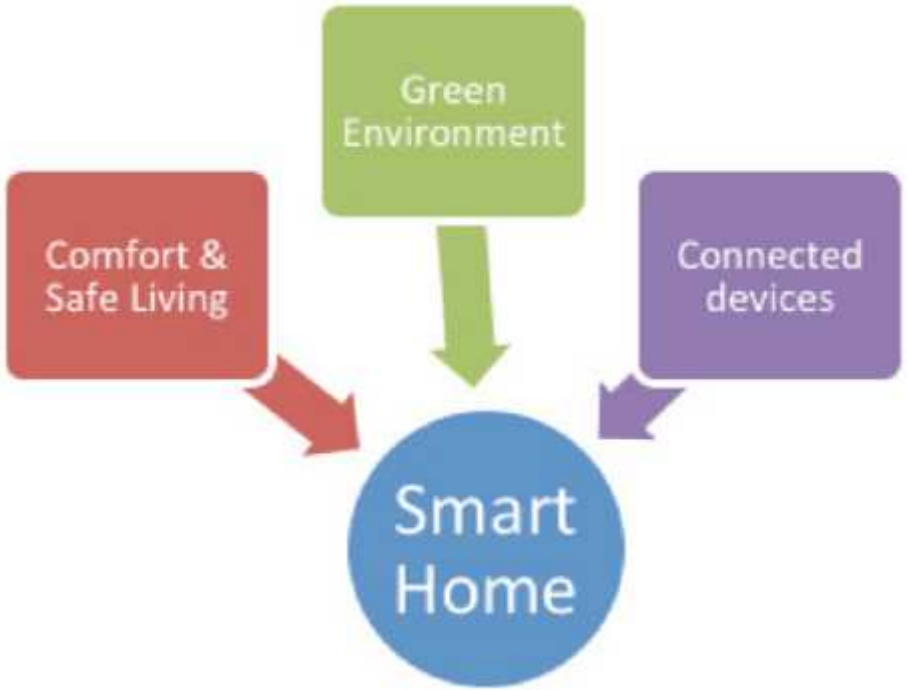
Broadband Inside

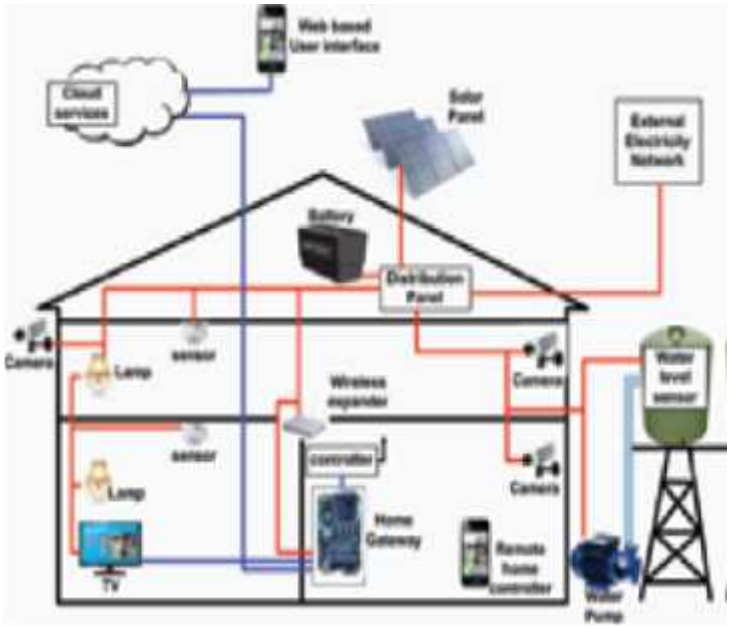
Innovation and Research

Innovation (collaboration platform)



Innovation (smart home)





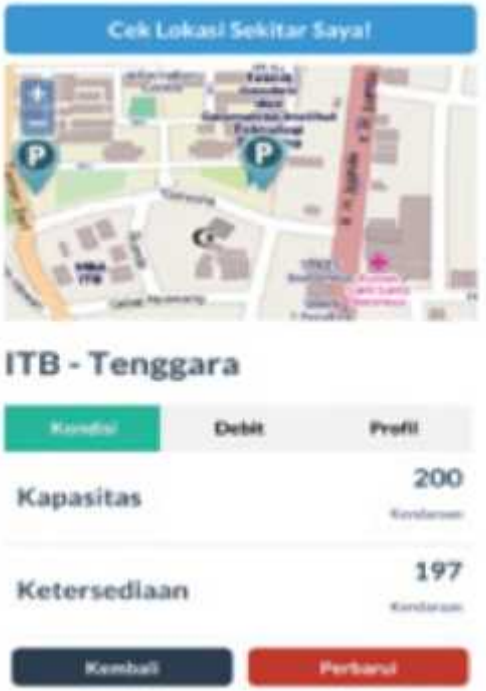
Innovation (smart education)

Innovation (Smart Transport)

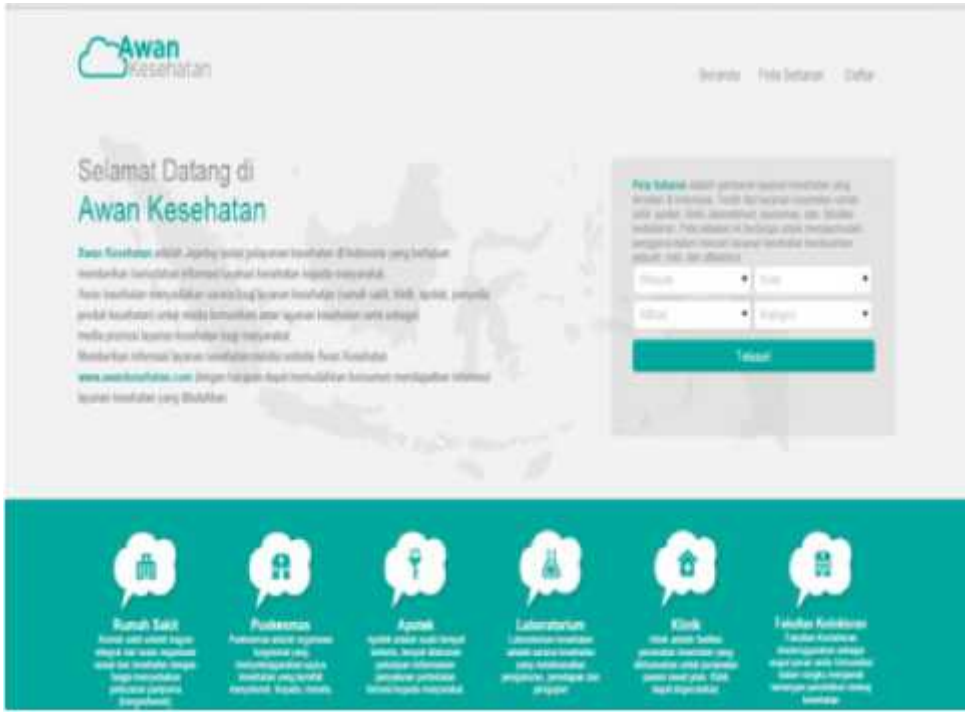
Server Lahan Parkir

Cloud Server

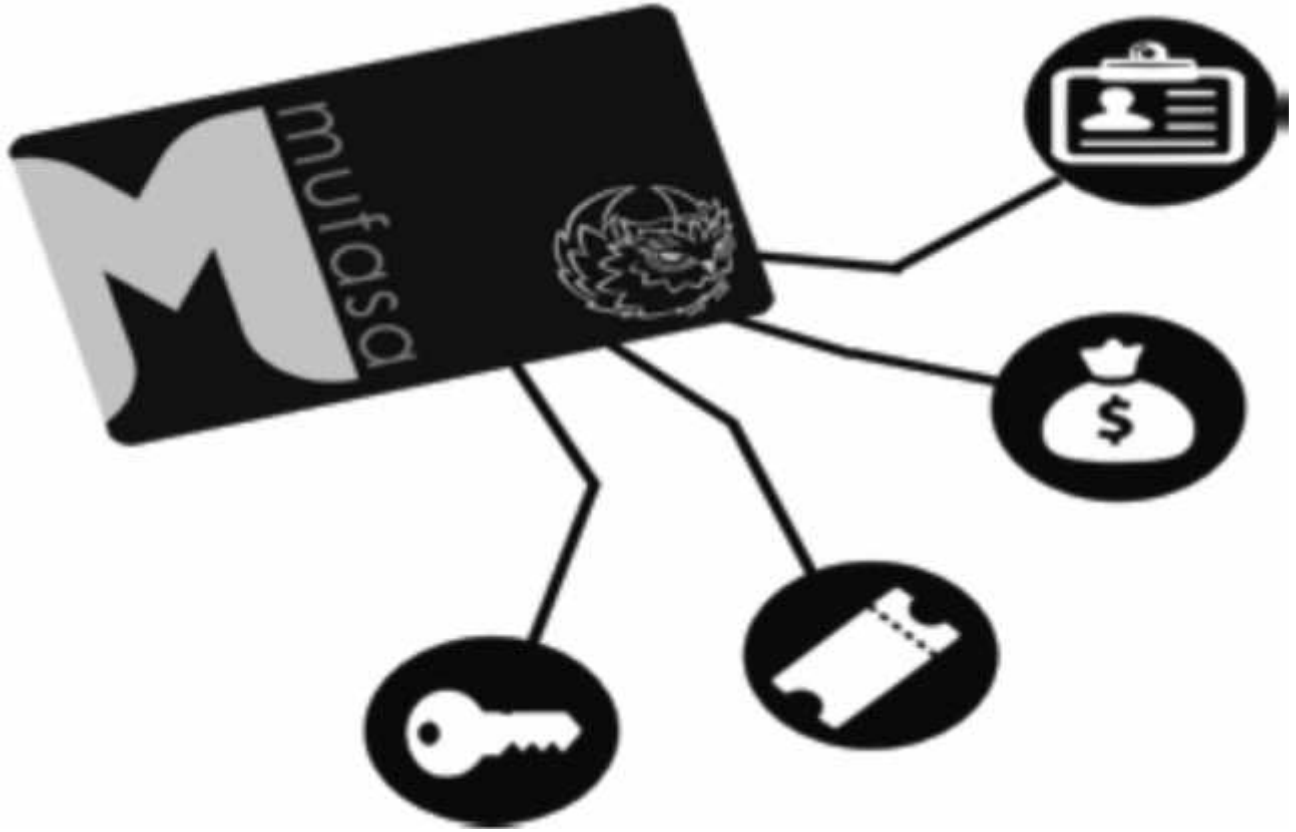
Mobile Smart Parking



Innovation (Smart Health)

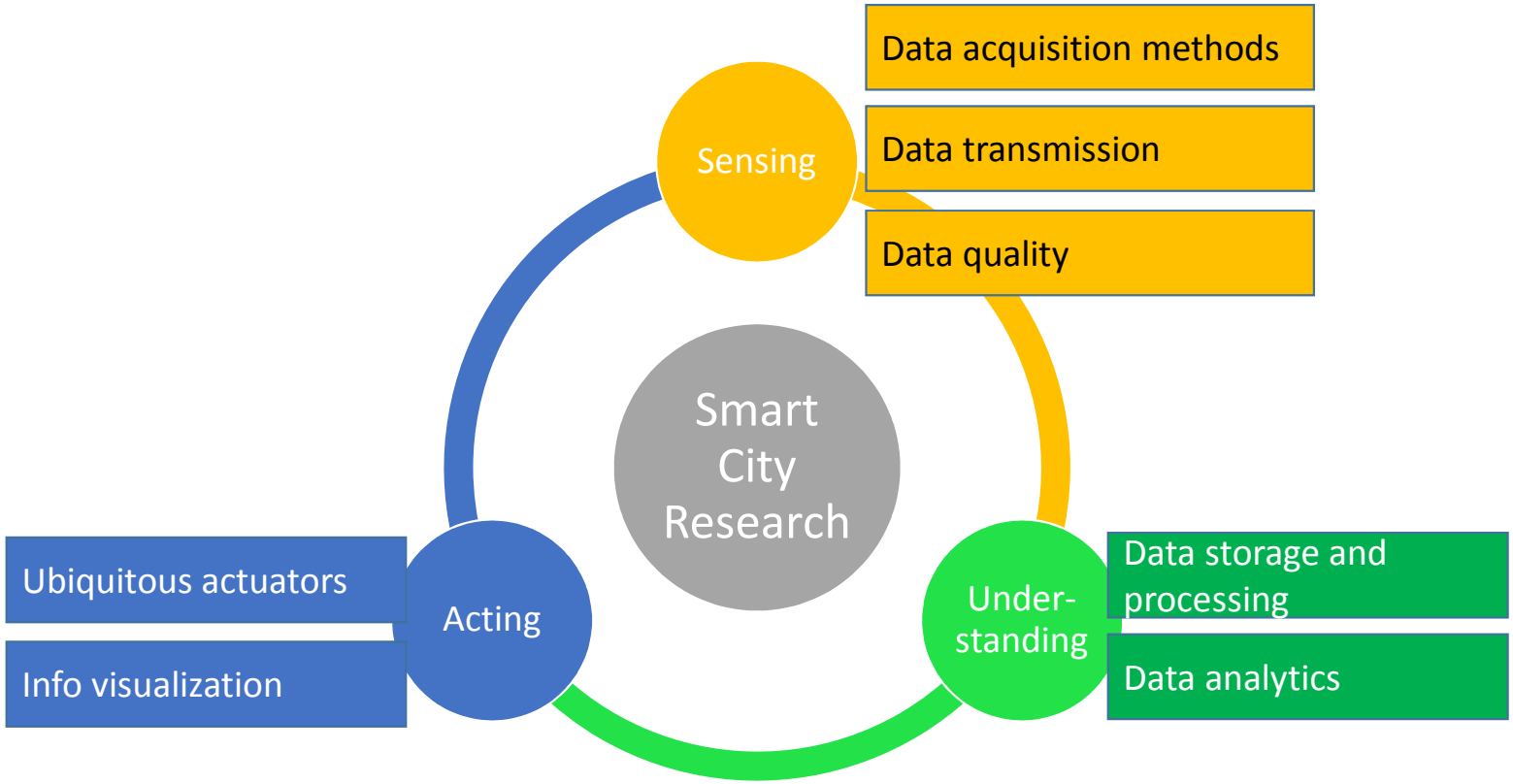


Innovation (Smart Payment)



Innovation (Smart Commerce)

Research Areas



Invent, Innovate, Impact

Open InnovationLab.

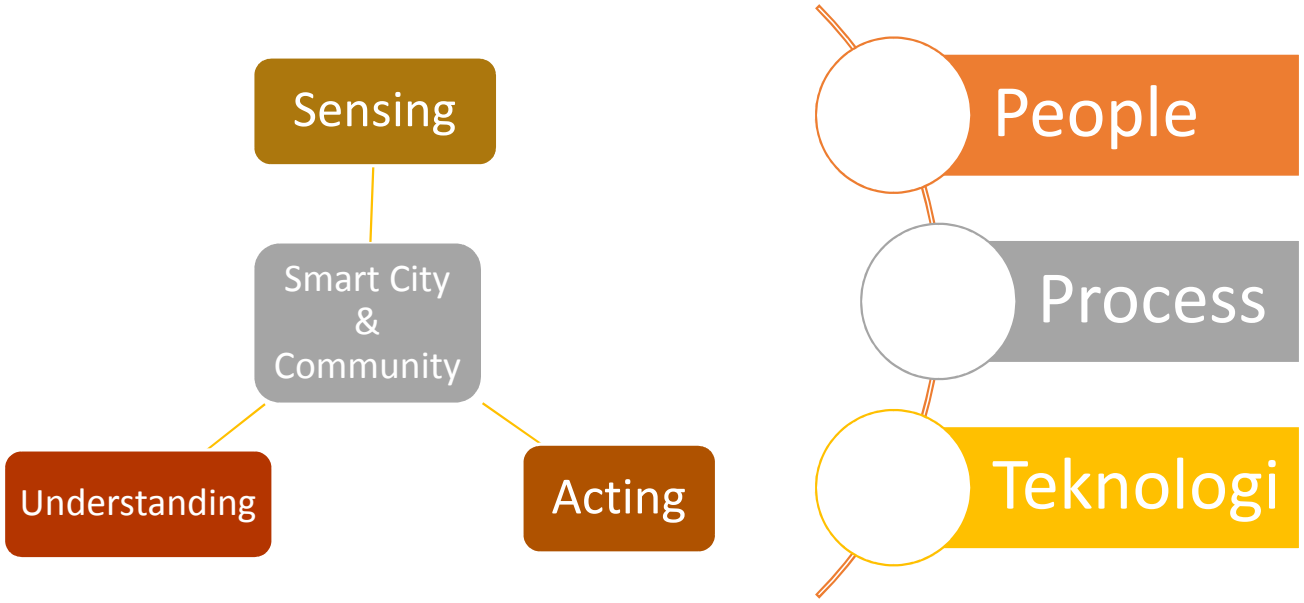
Smart City dan Community Development

LPiK ITB

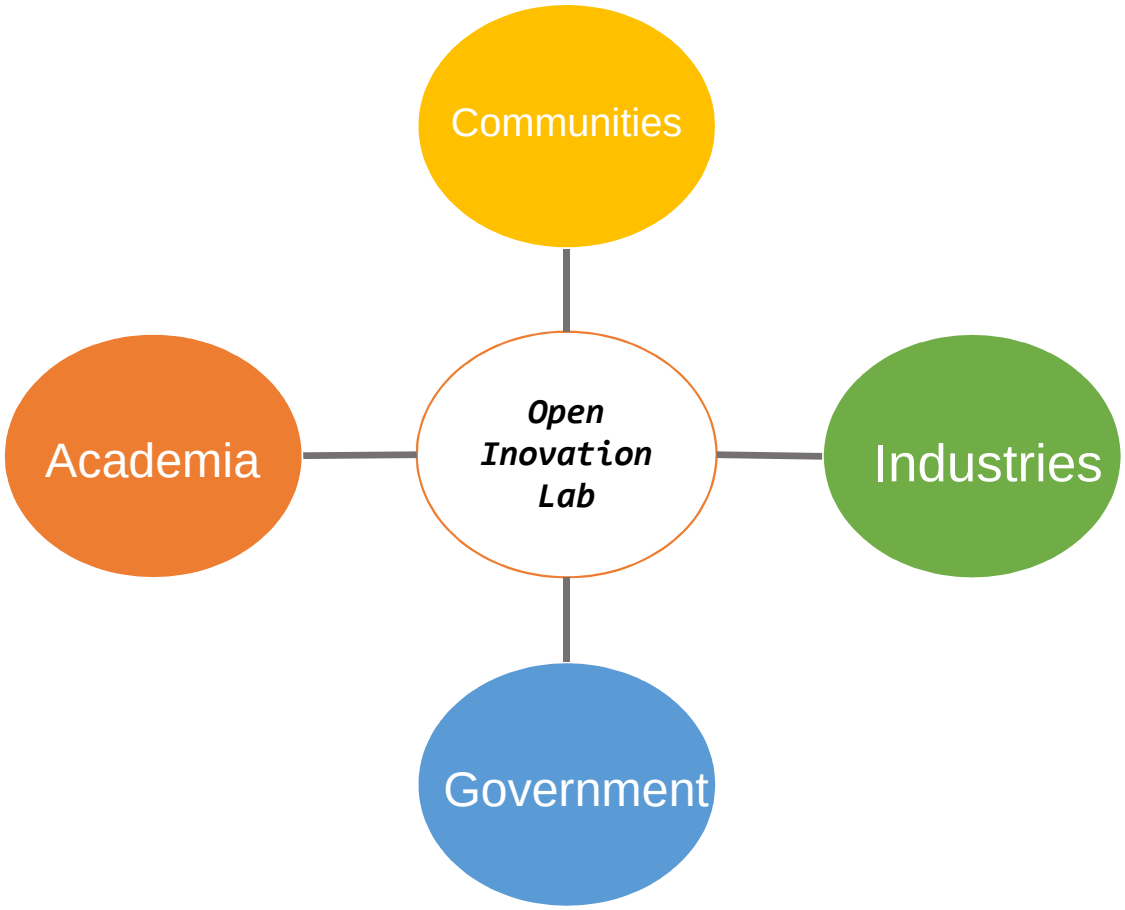
Lembaga Pengembangan Inovasi dan Kewirausahaan

Open InovationLab

Open InovationLab is a program to understand (sense) the real problem of city or and community then to discuss multidisciplinary in this lab and finally proposing a solution with industry and community.

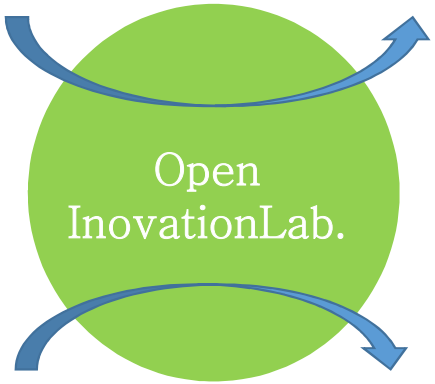


Open InovationLab Partners

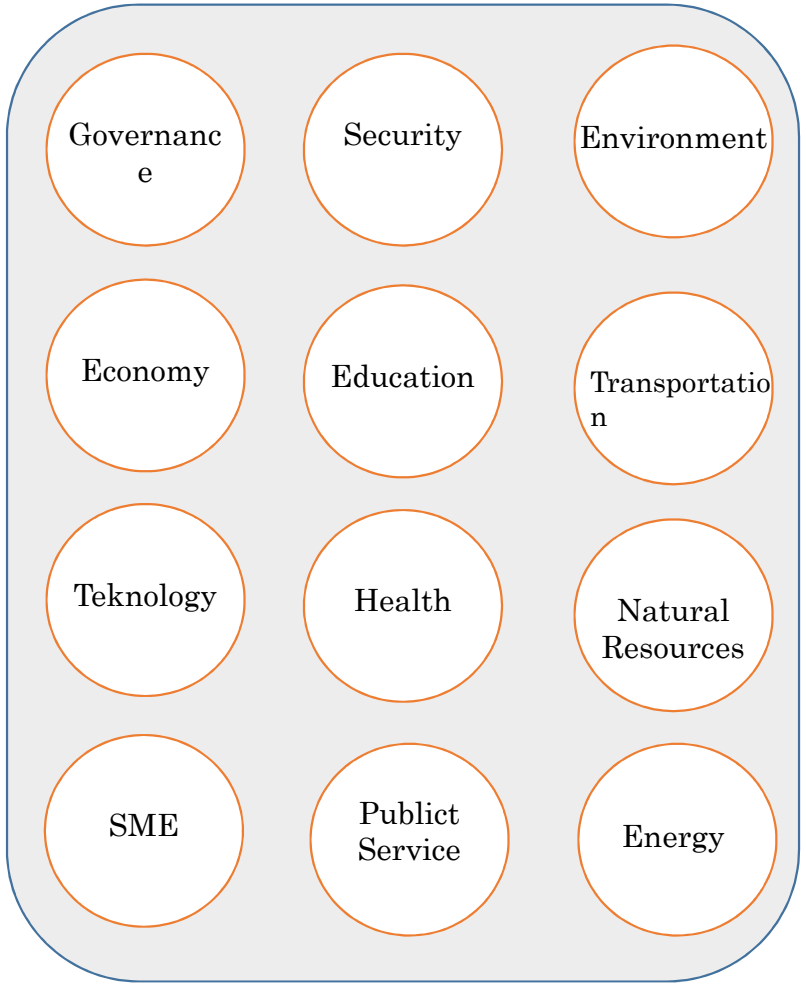


Innovation Focus on Smart City and Community

City and Community Problems



Smart City and
Community Solutions



OpenInovationLab: Smart City Curricula

Dynamics Problem of a City

Smart City , Policy and Governance

Transformation towards Smart City

People, Process and Technology

Smart City Platform and Ecosystem

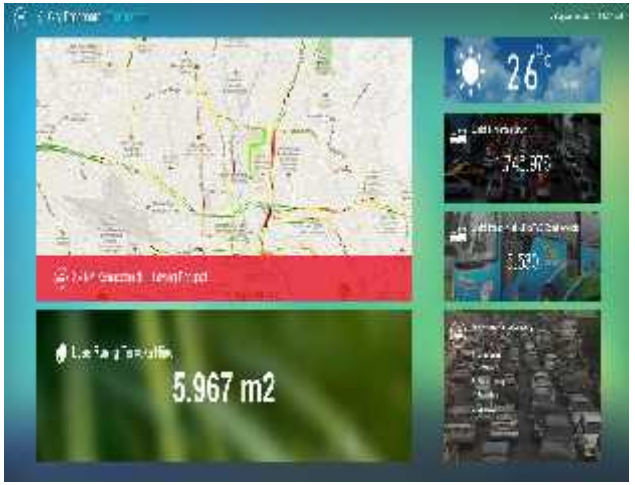
Smart City Components

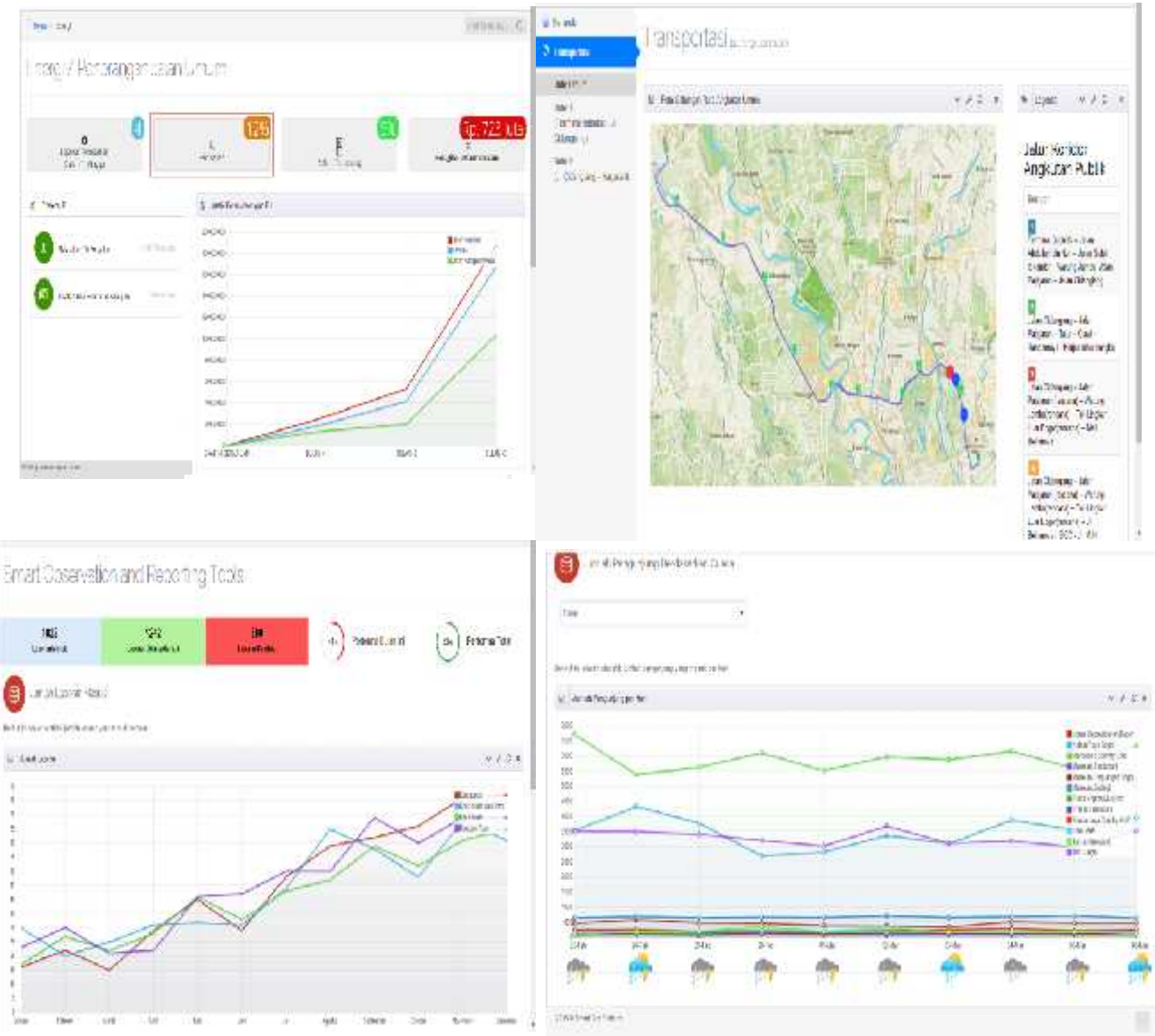
Social and Economy Aspect

Smart People

Smart Energy

Activities in Openinnovation lab In Collaboration with Telkomsel (Telco):

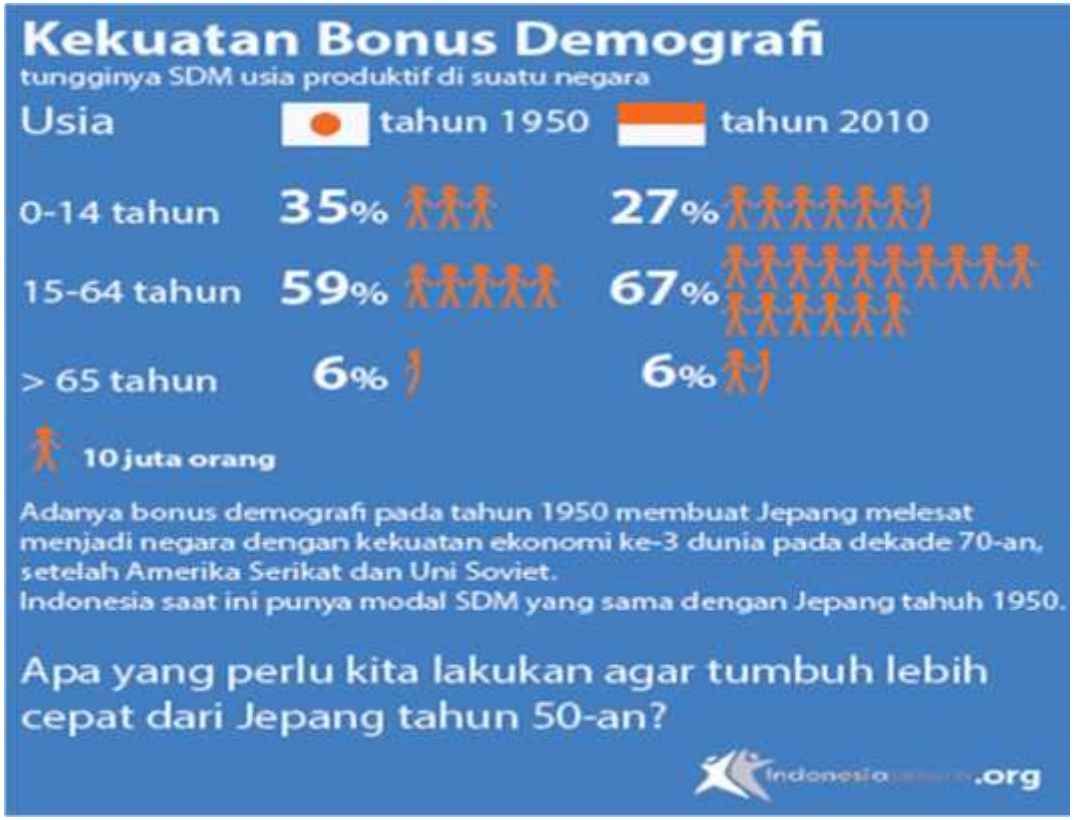




C-GEN

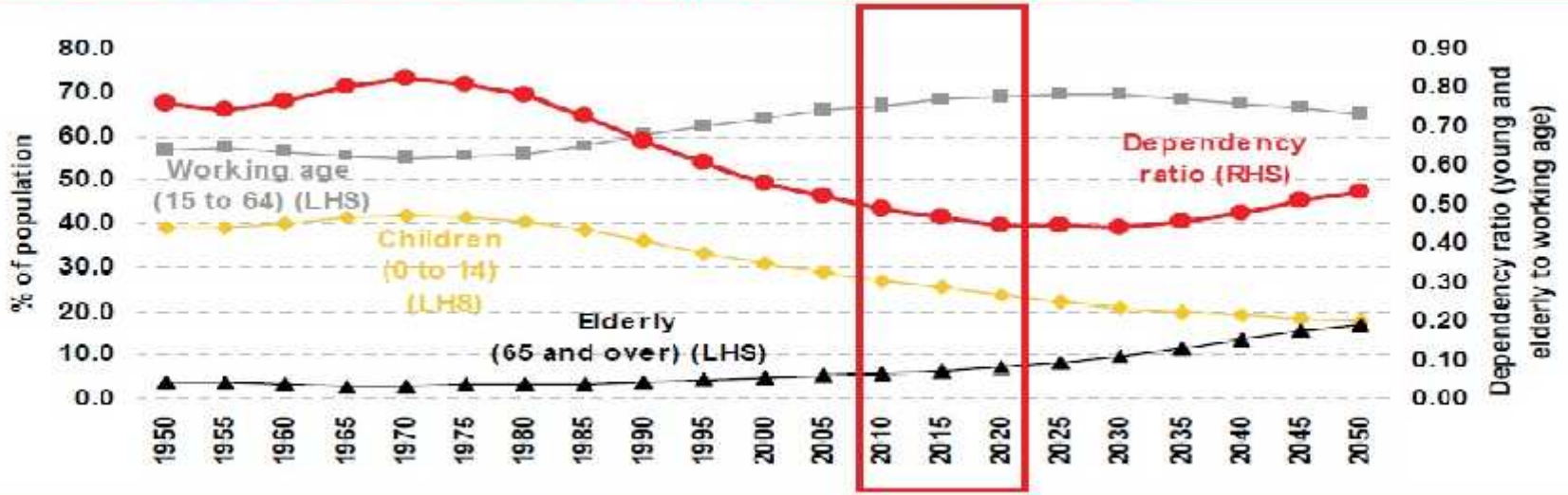
Smart Generation for Smart City

Background


Kekuatan Bonus Demografi
tungginya SDM usia produktif di suatu negara
Usia
tahun 1950
tahun 2010
0-14 tahun
35%
27%
15-64 tahun
59%
67%
> 65 tahun
6%
6%
10 juta orang
Adanya bonus demografi pada tahun 1950 membuat Jepang melesat menjadi negara dengan kekuatan ekonomi ke-3 dunia pada dekade 70-an, setelah Amerika Serikat dan Uni Soviet.
Indonesia saat ini punya modal SDM yang sama dengan Jepang tahuh 1950.
Apa yang perlu kita lakukan agar tumbuh lebih cepat dari Jepang tahun 50-an?
.org

Background

Figure 42: Indonesia's demographic window of opportunity will close in the next decade

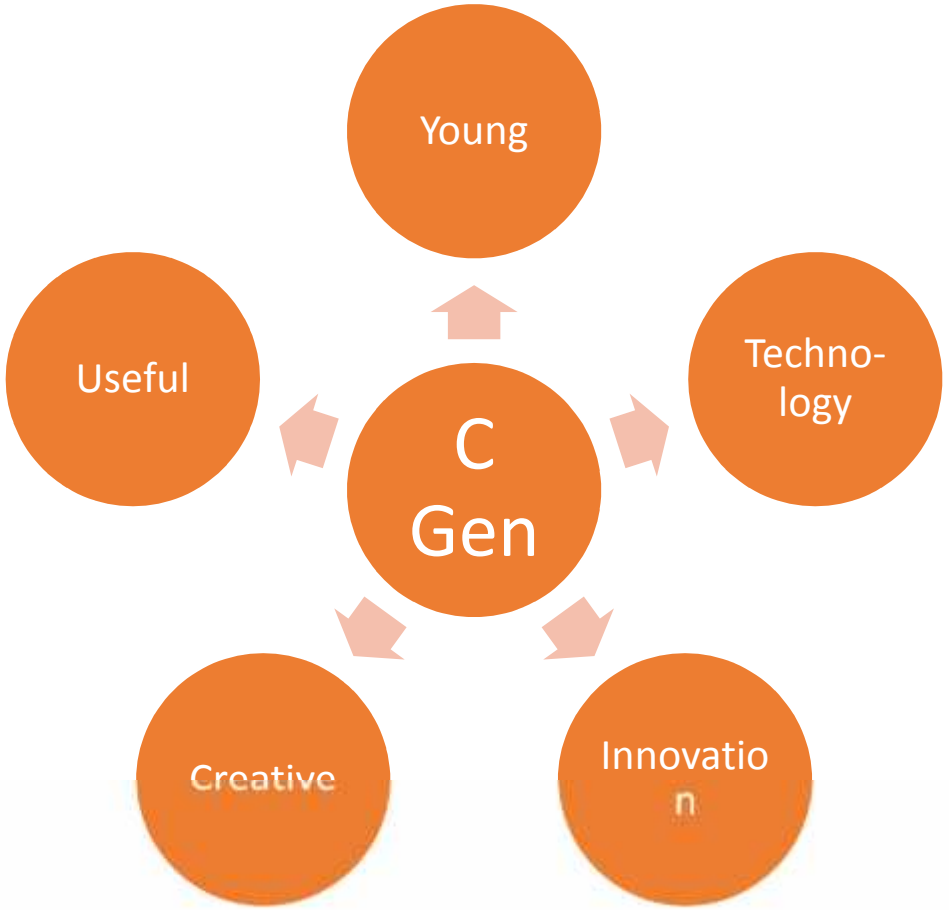


Sources: Demographic projections from BPS and UN Statistics.

Background

180 juta : 85 juta
Perbandingan usia produktif dan non produktif
dependancy ratio
44%
tahun 2020-2030
prita ramadiani

Who Are We?



Who is our target?

- **Indonesian**
- **12-22 years old**

Should become C-Gen Member

What do We do?

- Creating a community for youth generation to create a better Indonesia

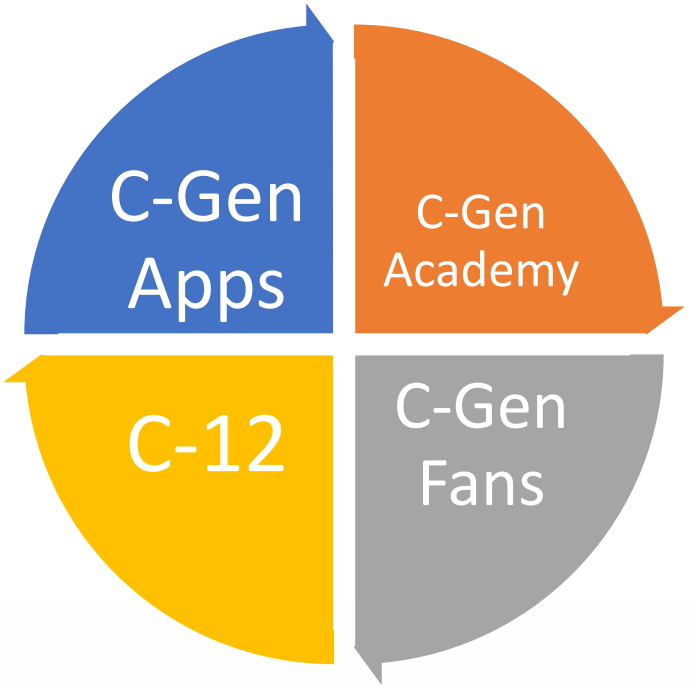
- Encourage youth generation to be :
  - Creative
  - Connected
  - Character
  - Collaborative
  - Convergence

C-Gen will act as...

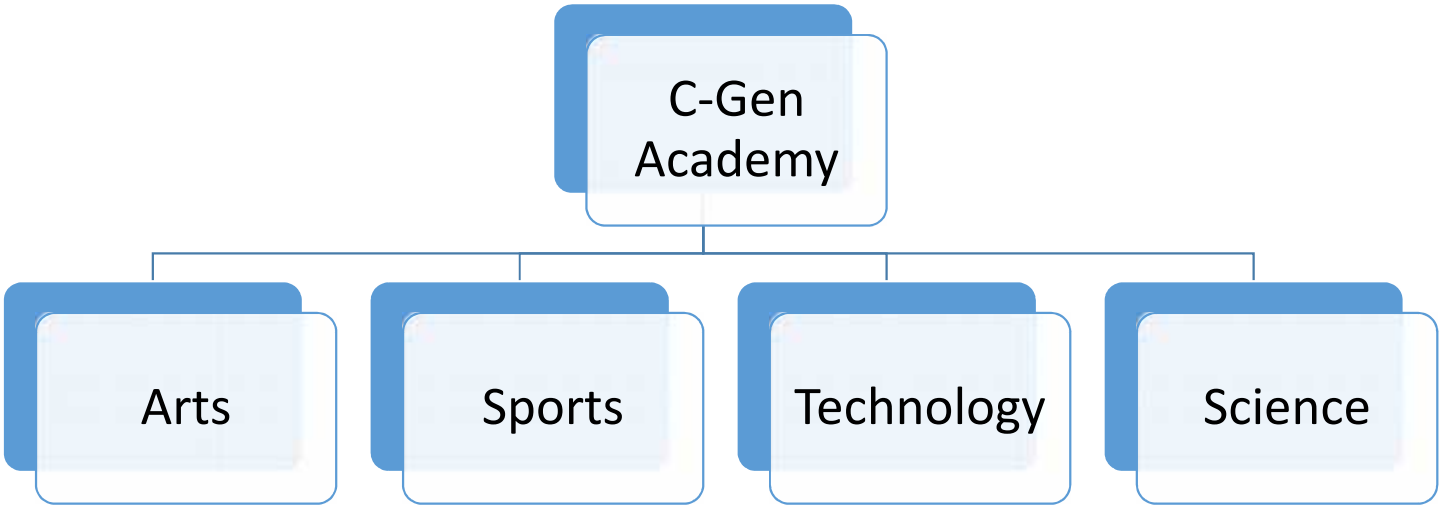
Initiate Movement

Youth Connector

What is our Innovation ?



What is C-Gen Academy ?



gaul gak mesti amburadul!

smart ACADEMY

Cooperation/Support

Telkom Indonesia
the world in your hand

TELKOMSEL

Bandung City

Special Capital Region of Jakarta

Ministry of Public Works

Ministry of ICT

motorola
a Google company

BlackBerry