

# SMART TAIPEI & GO SMART

**smarttaipei**

**GO  
SMART**

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**Director / Taipei Smart City Project Management Office  
Secretary General / GO SMART**

# Mechanisms

Bring INNOVATION into  
Government Cross-Cutting  
Projects & Smart City Projects.

**Top-down**



**Citizen  
Participation**



Open up channels of  
COMMUNICATION,  
allowing citizens to  
communicate directly with  
authorities.



**QuickWinDriver**



**Bottom-up**



Provide Industry OPPORTUNITIES &  
Promote Innovative Solutions through  
Proof of Concept (PoC) Model.

# 4U Green & Share Transportation

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## YouBike Sharing Bicycle

400 Stations  
13,000+ Bikes



## U-motor Sharing E-Scooter

5,500 Scooters



## U-EV Sharing EV

281 EV Chargers at  
107 public parking lots



## U-Parking Sharing Parking Space

PoC Project



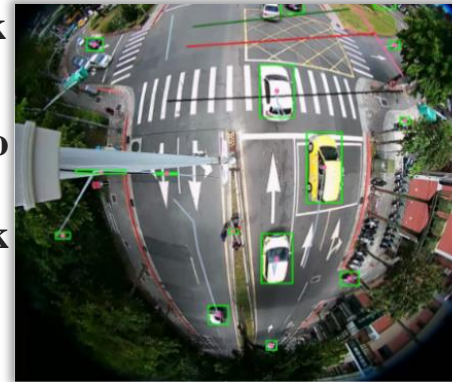


# Smart Streetlight

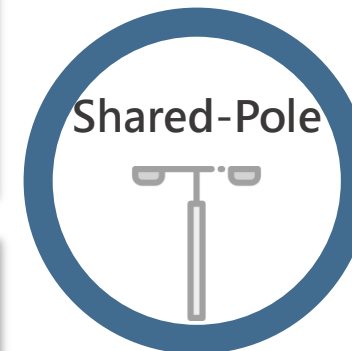
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## Street lights as a neural network of the City

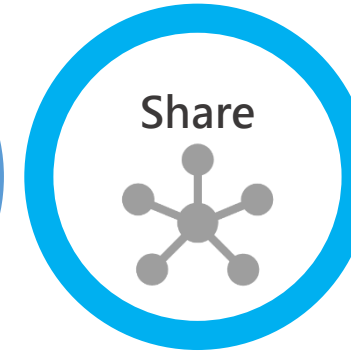
- With communication facilities 、 sensors
- Collecting data 、 analysis to solve city problems



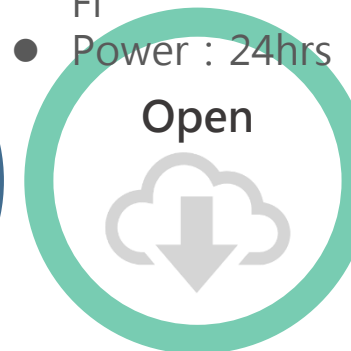
- LED
- Smart Lighting Control



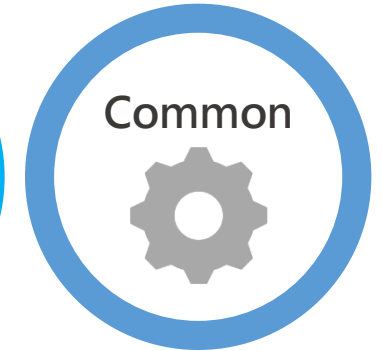
- CCTV
- Sign
- headspace



- Communication : 5G 、 NB-IOT 、 Fiber Optics 、 Wi-Fi
- Power : 24hrs



- Open data
- Open API



- Standard Interface
- Plug in Play
- modular



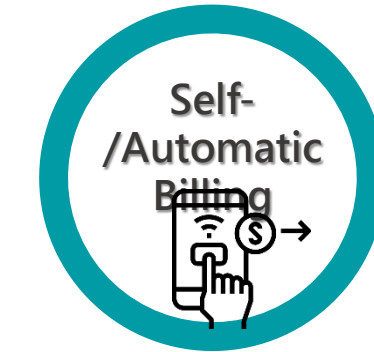
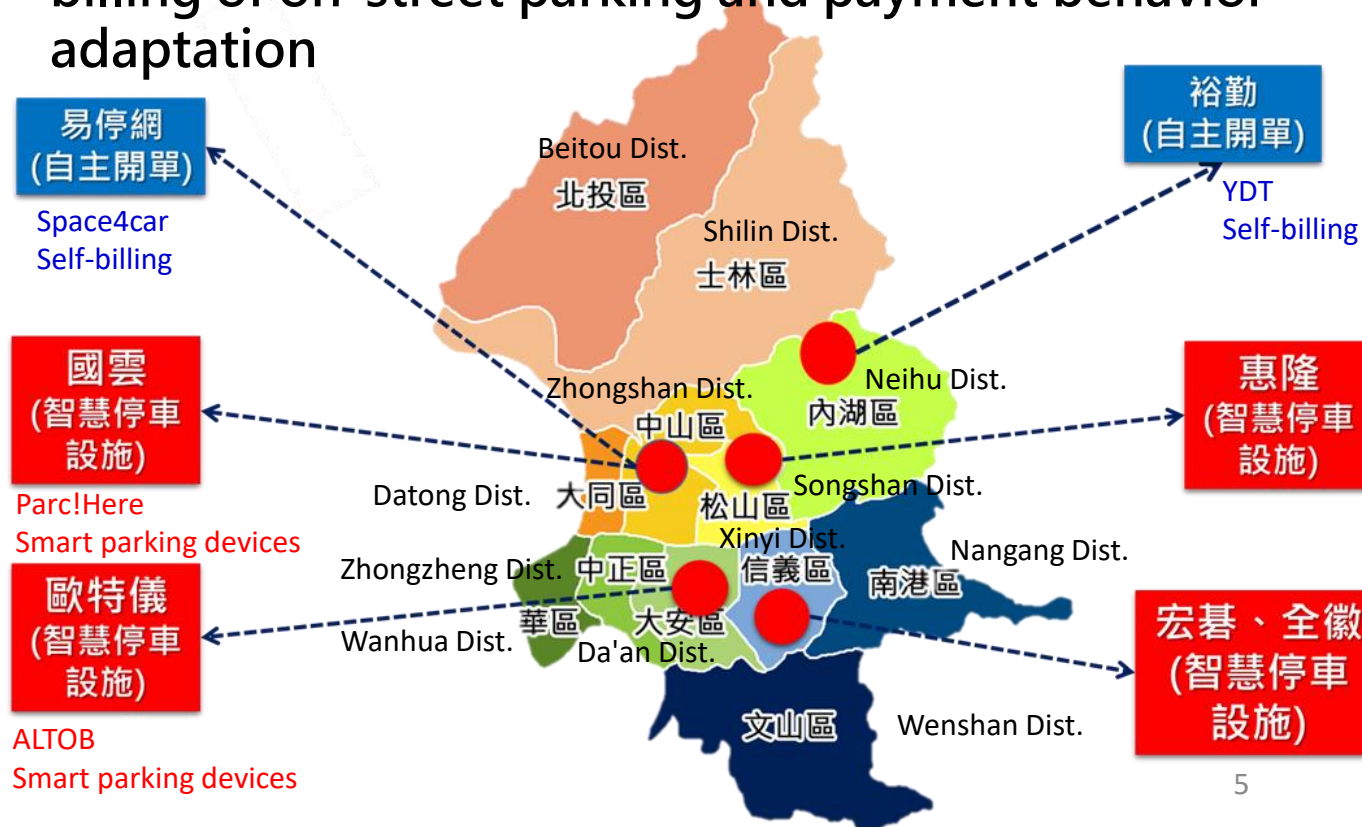
- Transportation
- Security
- Business
- .....

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# Field Test- Smart Parking

- Pilot phase: Update parking space information in real-time by using various ICT technologies and models to save time spent searching for a vacant space
- Phase 2: Review the degree of public acceptance/feasibility of applying smart devices to billing of on-street parking and payment behavior adaptation

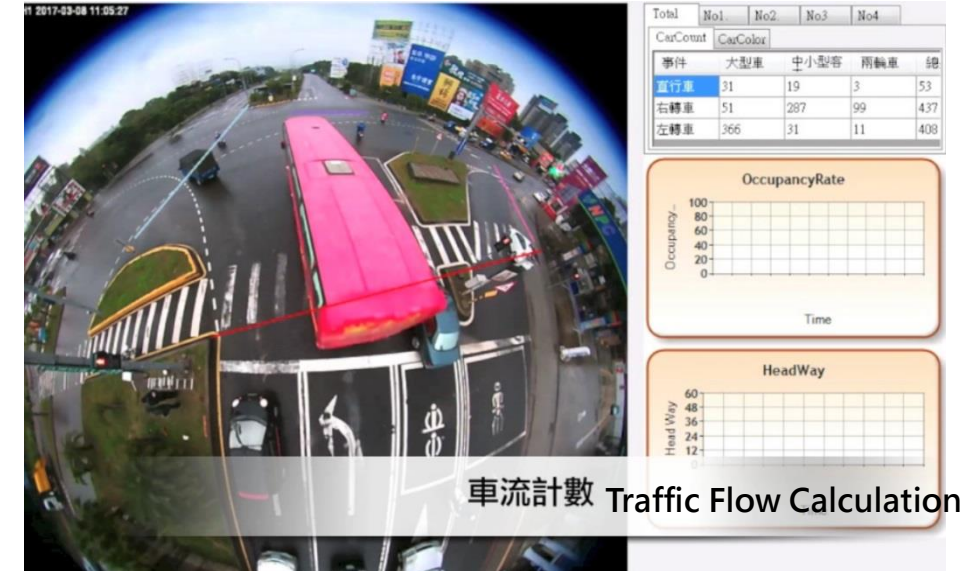


# Integrating 360° Fisheye Image Solution to Resolve Traffic Congestion in the City

Has built a 360-degree fisheye detector and integrated Artificial Intelligence technology at Neihu District, providing instant traffic and trajectory of different models at intersections with complex traffic conditions.

## Real-time Traffic Information Analysis

- Turning directions (L, R, S)
- Vehicle size (L, M, S) recognition & Calculation
- Vehicle speed
- Locomotive Flow
- Intersection occupancy
- Original image



five million pixels and 360°/180° panorama



Detect traffic flows which are turning left or right to Tiding Blvd.  
Detect southward traffic flows, and automobile flows turning left to Gangqian Rd.

Detect southward traffic flows, and motorcycle flows turning left to Gangqian Rd.

Detect northward traffic flows, and traffic flows turning right to Gangqian Rd.





# Pilot Project for High Bit Video Detection System for Smart Parking Billing

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Assist Smart Parking Billing by Using High Bit Video Detection System

- Field tests at two blocks at Nangang Dist. and Songshan Dist., respectively
- Assist operations by Parking Management and Development Office
- Efficiency comparison between this system and manual billing
- Monitoring platform (for block management, parking space management, payment management, parking status information, vacant space information and record inquiry)

#	流水號	所屬區域	所屬公司	所屬道路	所屬停車場	停車位編號	車牌號碼	入位時間	離位時間	停車時間	管理員編號	數據來源
1	181029152156635	臺南市-內湖區	臺灣	行愛街	行愛路路邊停車場	TW0201003	■■■■■■■■■■	2018-10-29 15:20:13	2018-10-29 15:24:04	00:03:51	識別主機	識別主機

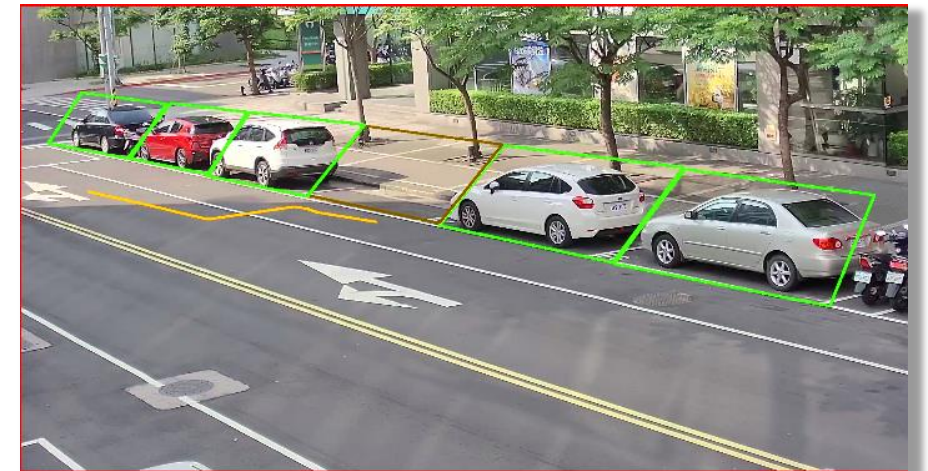
Labor  
Cost  
Reduction

Data  
Collection  
and  
Application

User  
Charge

Real-time  
Spatial  
Information

Video  
Database





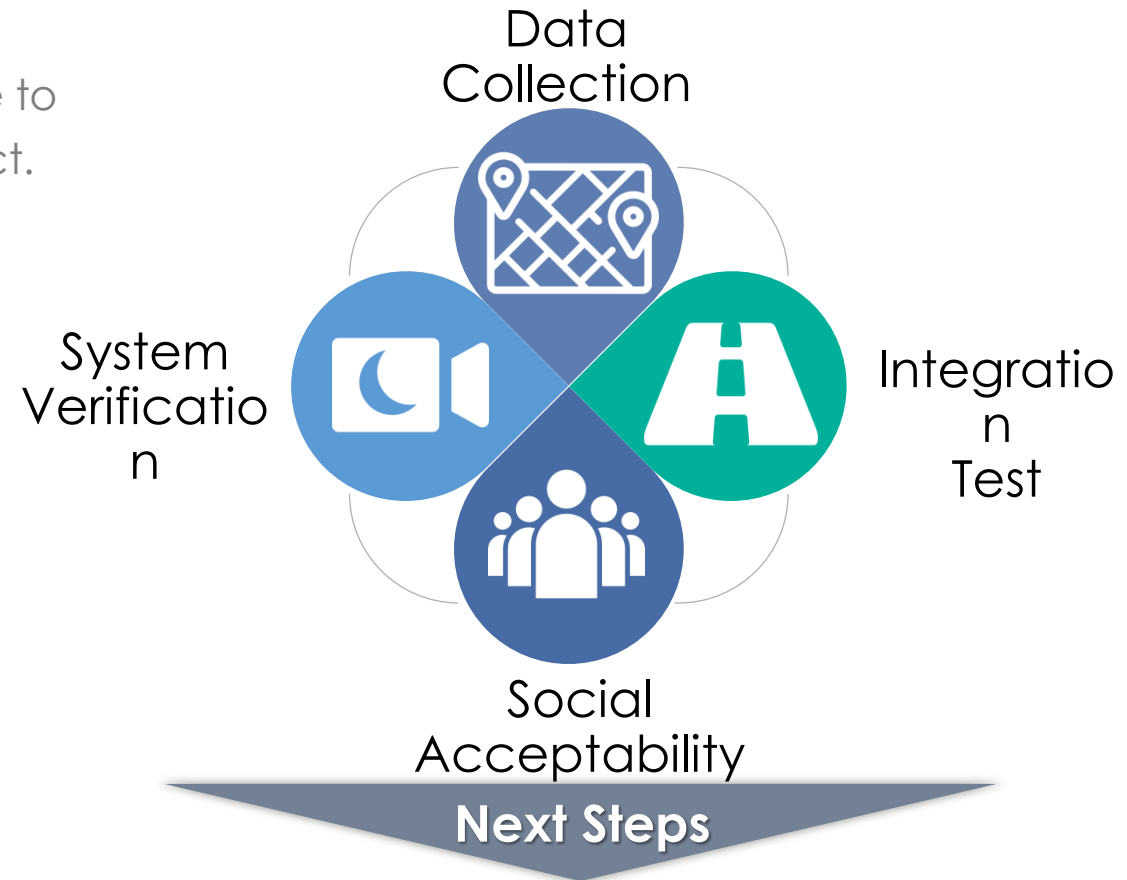
# First Autonomous Bus Road Test

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The EZ10 Autonomous Bus Tested on the Xinyi Road bus lane

International consortium of companies

- The EZ10 is outfitted with six LiDAR sensors, allowing the vehicle to detect distance using its laser system, thereby avoiding impact.



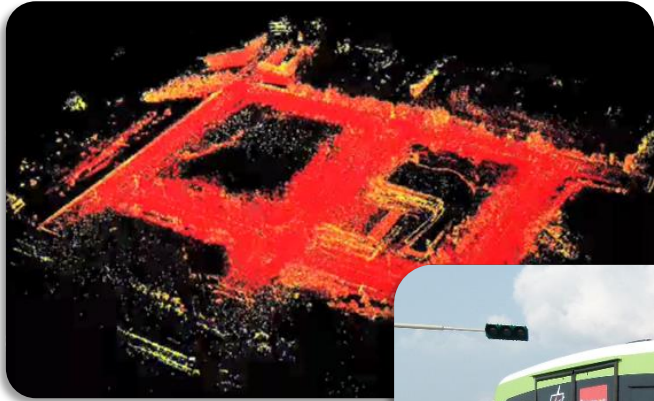
- Technical Experiments (V2V, V2I)
- Regulatory Adjustment
- Public Service

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# Autonomous Vehicles Testing Field **smarttaipei**

## Creating International Internet of Vehicle Platform

- Using Beitou-Shihlin Science Park as the autonomous vehicle related technologies testing field, to enhance the utilization efficiency of urban space and reduce the cost of the experiments.





# Regular Self-Driving Shuttles Service at City Center

## 1<sup>st</sup> Stage : Preparation (2020.02-04)

- Build High Resolution Map
- Set up Smart Intersection
- Safety Notice
- Charging Station and Operation Center



## 3<sup>rd</sup> Stage: Operating Service (108.09-110.02)

- Based on result of road test( 2<sup>nd</sup> Stage), operate the service in midnight for citizen to experience self-driving shuttles gradually.

## 2<sup>nd</sup> Stage : Road Test (2020.05-08)

- Road test
- Test different Scenario



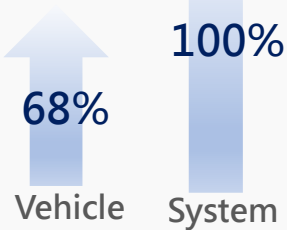
Vehicle length: 6 meters  
Passenger capacity: 12+22



Vehicle length: 4 meters  
Passenger capacity: 9



Made in Taiwan





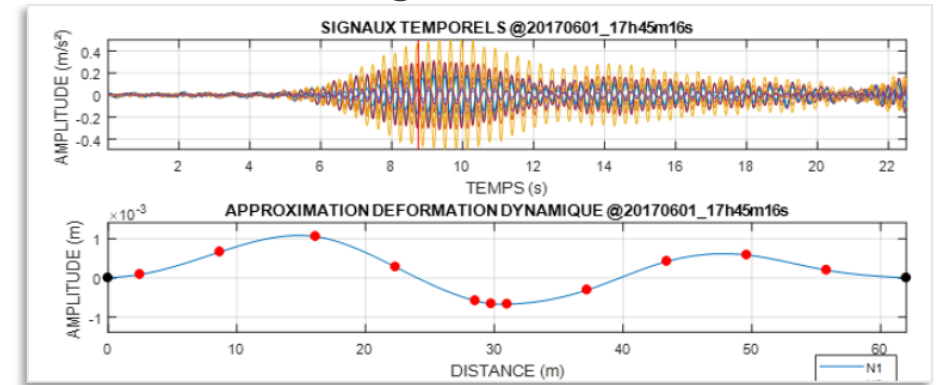
# Shezi Bridge Structure Monitoring

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Building Structure Monitoring Solutions - Sensing 3D deformation and real-time triaxial vibration data



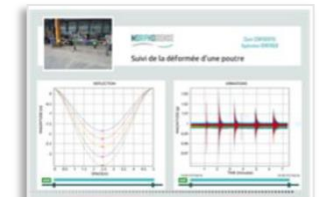
Instant monitoring



LPWAN, 4G  
Wi-Fi, BLE

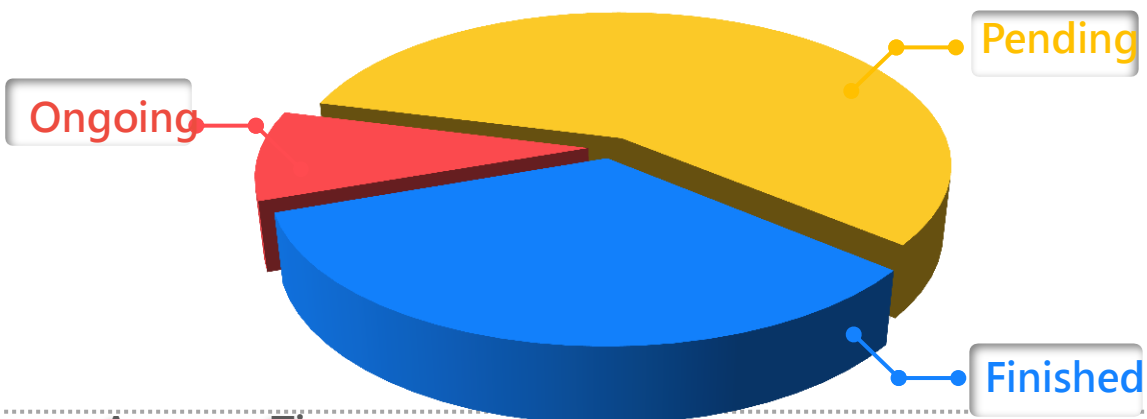


Cloud server



Monitoring interface

## Project Status



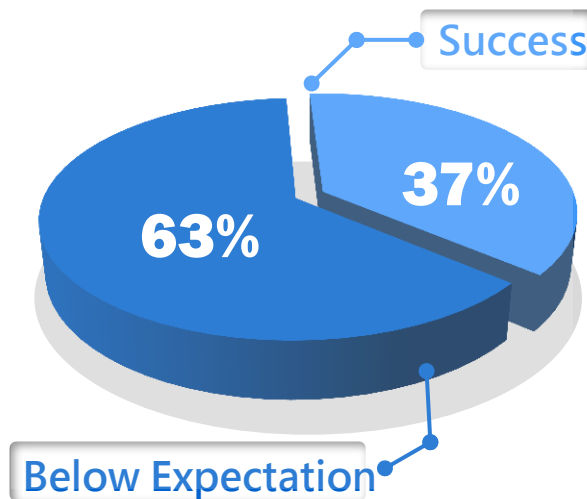
## Average Time Spent



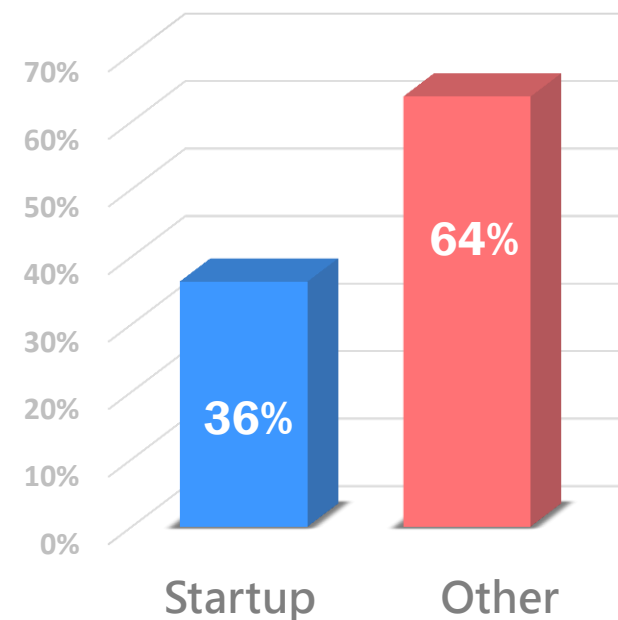
## Number of Projects/Year



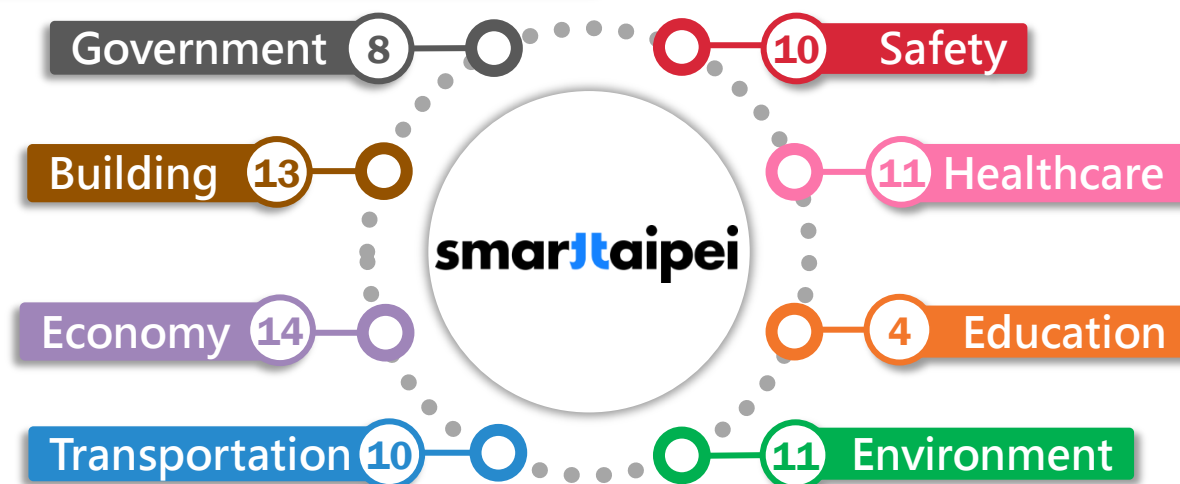
## Finished Projects Result



## Startups Participation



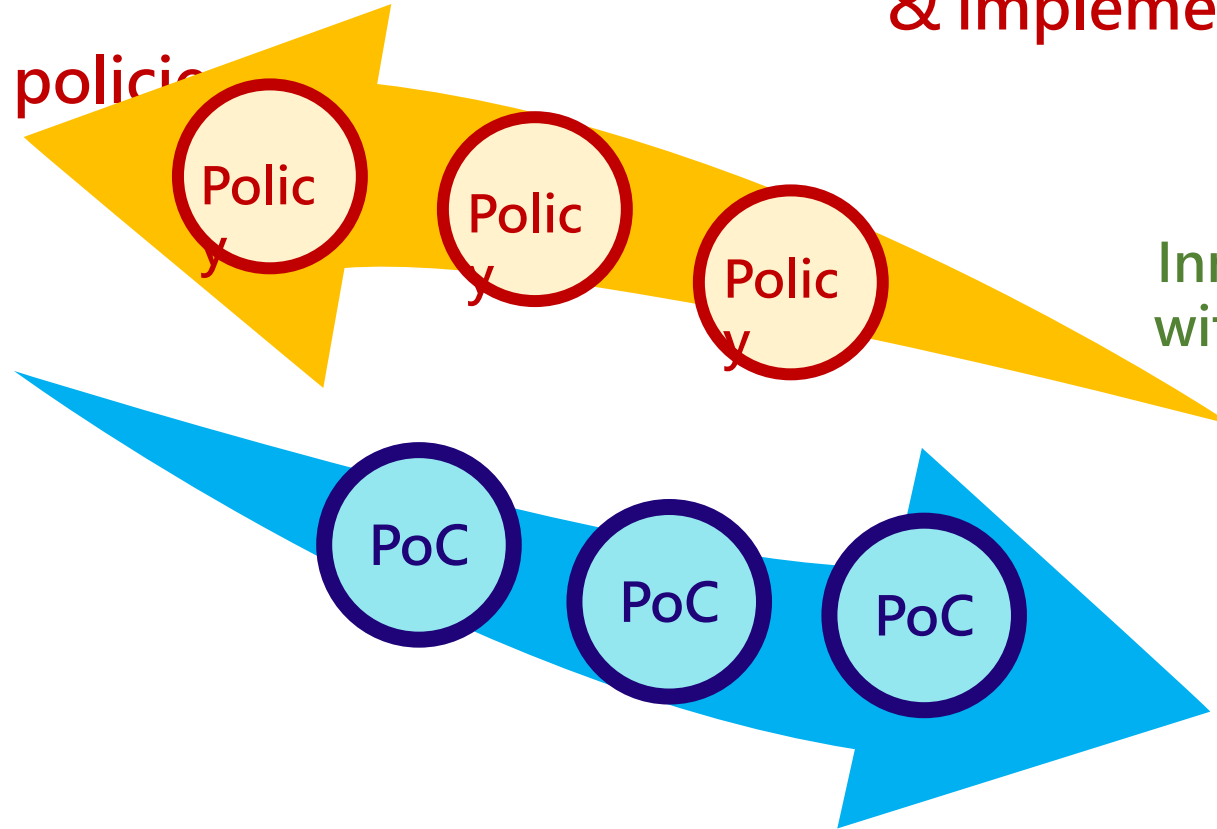
## Field of Ongoing/Finished projects



# PoC Next: Enhancing Implementation



Cultivate feasible and effective innovative public services  
& implement smart city

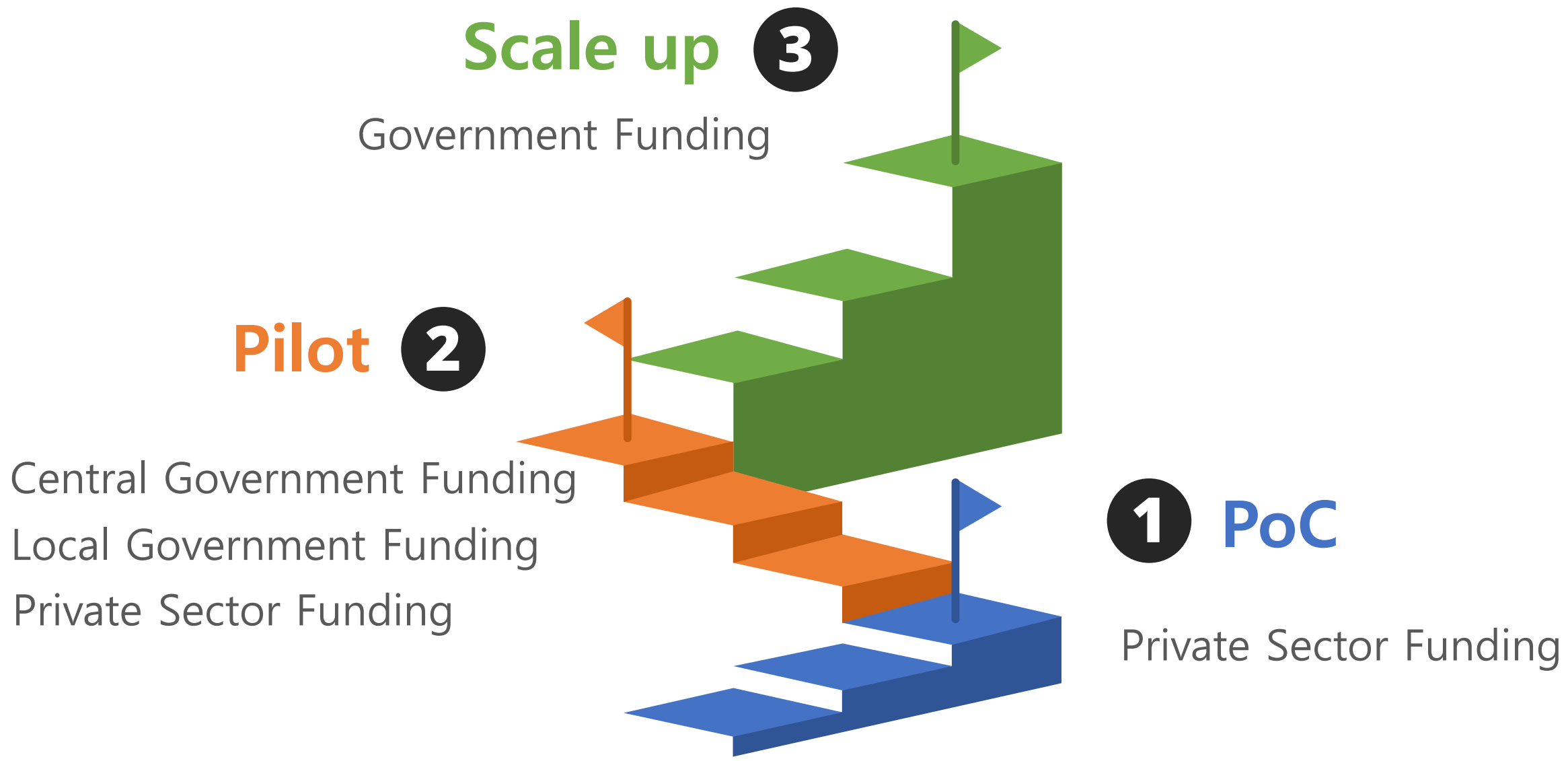


Innovative Smart solutions  
with proliferation potential



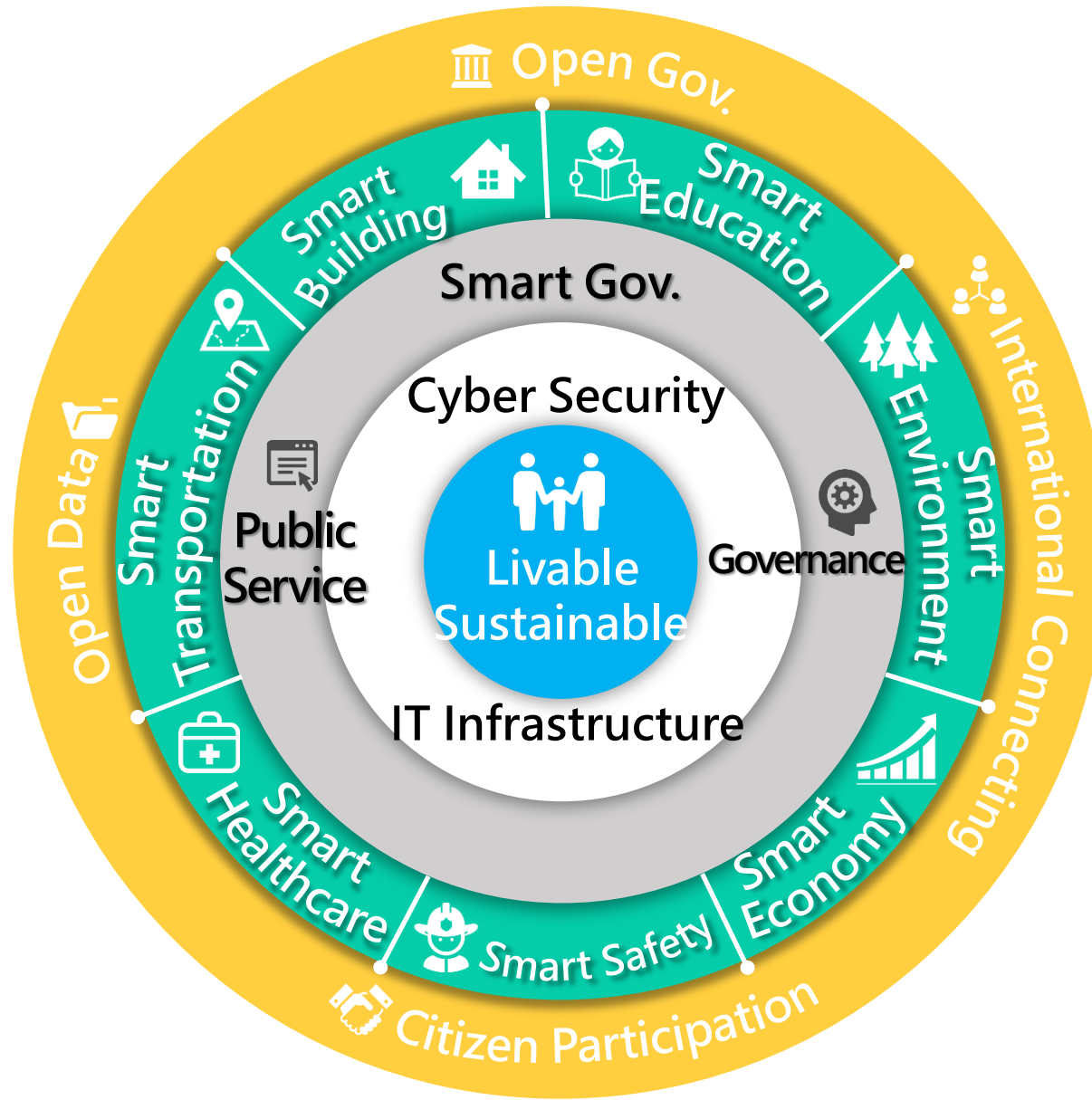
Based on the policy direction, set the expectation of PoC,  
then judge the effectiveness according to actual verification results





# 1 Core+7 Key Directions

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Method\*5

Topic\*7

Core\*3

Framework\*2

Vision

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# Awards & Recognition

- **GO SMART AWARD, 2019**  
(GO SMART, Global Organization of Smart Cities)
- **Smart City Asia/ Pacific Awards, 2019**  
(IDC, International Data Corporation)
- **World' s Top 50 Smart City Governments- No.16, 2018**  
(Eden Strategy Institute)
- **Smart City Asia/Pacific Awards, 2018**  
(IDC, International Data Corporation)
- **Award of Distinction, 2018**  
(The Open Group Awards for Innovation and Excellence)
- **Golden Award- Cooperative City, 2017**  
(WeGO, World e-Governments Organization of Cities and Local Governments)
- **Local Government Awards, 2017**  
(ITS, Intelligent Transportation System World Congress)
- **No. 5 of Most High-Tech Cities in the World, 2017**  
(World Economic Forum and Business Insider)
- **Metro-ICT Best Practice Award, 2017**  
(ASOCIO, Asian-Oceanian Computing Industry Organization)
- **Asia Pacific Excellent Project Management Award, 2017**  
(PMI, Project Management Institute )
- **Smart City Asia/ Pacific Awards- Transportation Category, 2016**  
(IDC, International Data Corporation)
- **ITS Industry Achievement Award, 2016**  
(ITS, Intelligent Transportation System World Congress)
- **Platinum Certification of ISO 37120, 2015**  
(WCCD, World Council on City Data)
- **Smart City Asia/ Pacific Awards, 2015**  
(IDC, International Data Corporation)





# Top 50 Smart Cities - Taipei No. 16

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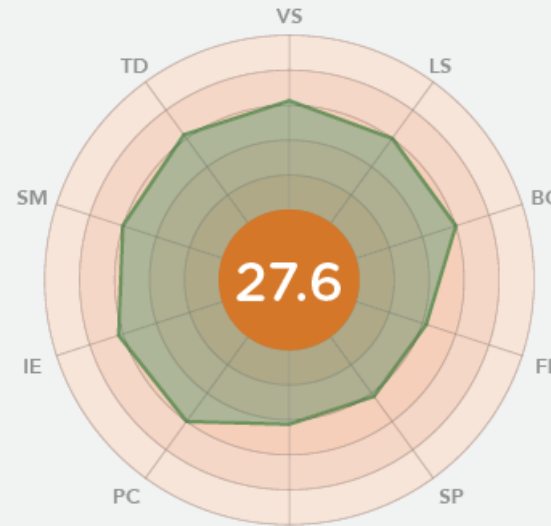
Rank	City	Rank	City
1	London	26	Los Angeles
2	Singapore	27	Surat
3	Seoul	28	Tokyo
4	New York	29	Berlin
5	Helsinki	30	Beijing
6	Montreal	31	Sydney
7	Boston	32	Ahmedabad
8	Melbourne	33	Bhubaneswar
9	Barcelona	34	Jaipur
10	Shanghai	35	Atlanta
11	San Francisco	36	Pune
12	Vienna	37	Wellington
13	Amsterdam	38	Kansas City
14	Shenzhen	39	Toronto
15	Stockholm	40	Dubai
16	Taipei	41	Dublin
17	Chicago	42	Tel Aviv
18	Seattle	43	Philadelphia
19	Hong Kong	44	Reykjavik
20	Charlotte	45	Lyon
21	Vancouver	46	Paris
22	Washington, D.C.	47	Jakarta
23	New Delhi	48	Rio de Janeiro
24	Copenhagen	49	Phuket

16

**TAIPEI**

*A living lab for crowd-sourced smart city projects to commercialize*

## SMART CITY GOVERNMENT SCORE



VS	VISION	3.1
LS	LEADERSHIP	3.0
BG	BUDGET	3.0
FI	FINANCIAL INCENTIVES	2.1
SP	SUPPORT PROGRAMMES	2.1
TR	TALENT-READINESS	2.1
PC	PEOPLE-CENTRICITY	3.0
IE	INNOVATION ECOSYSTEM	3.1
SM	SMART POLICIES	3.0
TD	TRACK RECORD	3.1

- In July, 2018, Singapore's Eden Strategy Institute released the list of the top 50 smart cities in the world
- It evaluated the development of 140 cities by 10 factors.
- Taipei is ranked 16th out of 140 smart cities / 5th in Asia.

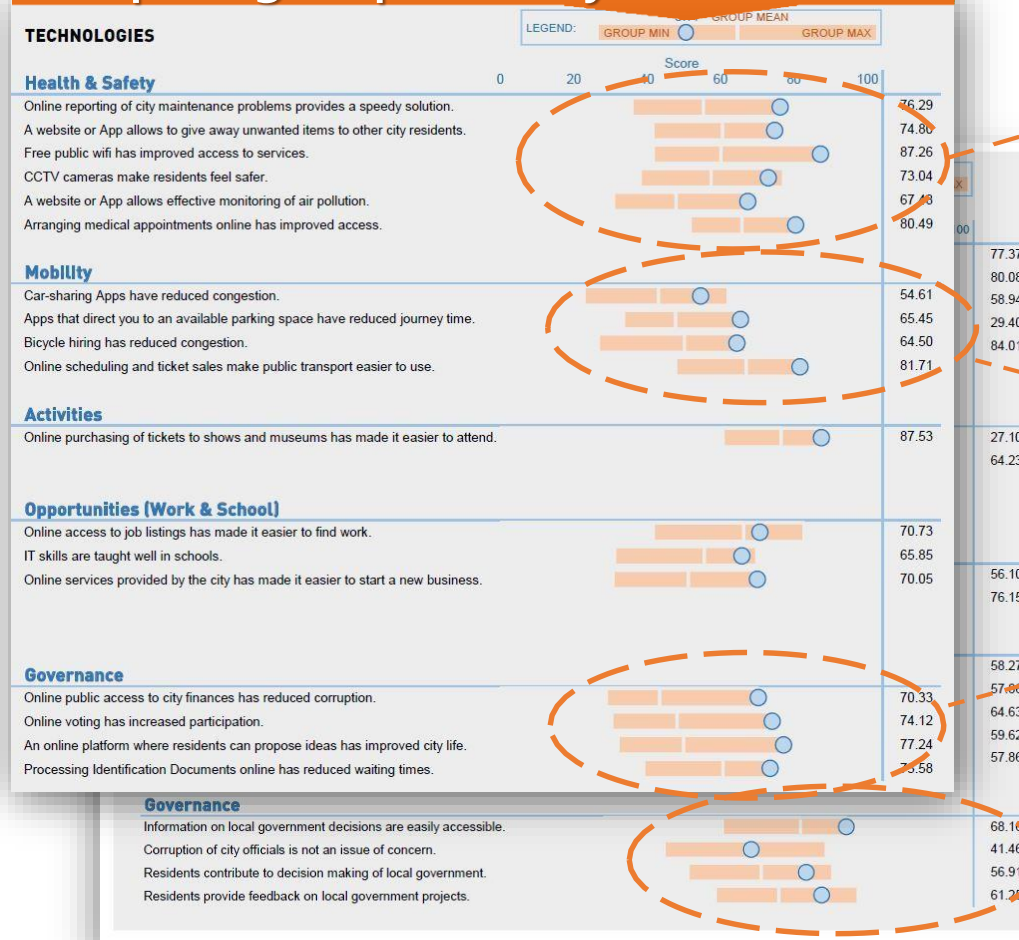
# IMD Smart City Index 2019 Taipei ranks 7th

In October, the IMD World Competitiveness Centre published the IMD Smart City Index 2019 which ranks 102 cities worldwide!

## Taipei ranks 7<sup>th</sup> !!

Overall ranking	City	Overall rating
1	Singapore	AAA
2	Zurich	AAA
3	Oslo	AA
4	Geneva	AA
5	Copenhagen	AA
6	Auckland	A
<b>7</b>	<b>Taipei</b>	<b>A</b>
8	Helsinki	A
9	Bilbao	A
10	Dusseldorf	A

## Taipei ranks in front among the peer group in every section.



The implement of Free Public WIFI / 24-hr Hotline (1999) / AirBox / Citywide CCTV improve the health and safety of citizen.

The promotion of YouBike, U-Motor, U-EV, U-Parking, effectively eases the traffic congestion of Taipei City

Taipei adheres the philosophy of "Open Government", "Open Data", "Public Engagement", promote online policy engagement platform (i-Voting)



# Share Experiences & Take Actions

## NEXT STEP: INTER-CITY POC

USA: NYC, Kansas  
City, Boston  
Canada: Edmonton,  
Montréal, Québec

UK: Peterborough, Greenwich, Milton Keynes  
Netherlands: Eindhoven, Amsterdam, Utrecht,  
Almere  
Spain: Barcelona, Madrid  
Austria: Vienna  
Finland: Tampere  
France: Paris  
Bulgaria: Sofia  
Armenia: Yerevan  
Germany: Berlin  
Poland: Warsaw  
Belgium: Brussels  
Turkey: Istanbul, Ankara

Czech Republic:  
Liberec, Prague  
Slovakia  
Greece: Trikala  
Croatia

Korea: Seoul, Daegu, Busan  
Japan: Kobe, Kyoto, Fukuoka  
Malaysia: Selangor  
India: New Delhi  
UAE: Dubai  
Singapore  
Russia: Ulyanovsk, Moscow

Australia:  
NSW  
Queensland  
Toowoomba

Find Us



<http://smartcity.taipei>





G  O

SMART

***Global Organization of Smart Cities***

- Since 2019 -



# Approaches



Engage & Facilitate

## Inter-City PoC

Exchange knowledge  
and initiate collaborations  
with global Smart City  
stakeholders.

## GO SMART Award

Provides the stage to successful  
Inter-City PoC projects  
by a yearly award contest.



Discover & Encourage

# Organization Chart



**Chair** (2019-2021)

**WEN-JE KO**  
Mayor of Taipei City



## Strategy Committee



**Secretariat**

**CHEN-YU LEE**  
Secretary-General



**201**

(as of Oct, 2020)

**94**



**Industrial  
Member**

**97**



**City  
Member**

**9**



**NPO  
Member**

**1**



**Honorary  
Member**



**Charles Reed Anderson**



# Strategy Partner



Taiwan, 2016



Switzerland,  
2018



Japan, 2018



South Korea,  
2010



Australia, 1986



SMART  
CITY  
CLUSTER

Hungary, 2019



South Korea,  
1987

# GO SMART Tasks



**22** Opportunity Report

**210** Matchmaking Meeting

**27** Workshop



Engage & Facilitate



Discover & Encourage

GO SMART Award **83**

Exhibition **8**

International Events **34**



Statistics till June 30, 2020.

# GO SMART Cities in Taiwan



1. Enhance administrative efficiency
2. Climate change
3. Data management to simplify official paperwork



1. Open Data & Data Analysis
2. Robotics
3. Green Transportation



1. Digital Citizen Life & Digital Governance
2. Living, Security, Education, Economy, Mobility, and Environment.



1. AI Drone for City Inspection
2. City Tourism with Intelligent Navigation
3. Inspection of Agricultural & Natural Disaster
4. Bridge & Construction Examination



1. AIoT application
2. Safety City (eg. Gas Leak issue)
3. Telemedicine



# GO SMART Online Forum

## — Smart Tech in Fighting COVID-19

*“A problem shared is a problem halved”, “A solution shared is a solution doubled”.  
Learning from each other through GO SMART Forum.*

April 29<sup>th</sup>, 2020

City Speaker	Industry Speaker
Taipei City	FOX-TECH
Darwin City	Origin Wireless
Economic Board Utrecht	Hedian Digital Integration Technology
World Smart Sustainable Cities Organization	Yallvend
Government of Canada (Quebec) in Seoul	OPEN LiFE
Taoyuan City	GeneJet Biotech
New Taipei City	ELECLEAN
German Trade Office Taipei	ThinkCloud
Industrial Technology of Research Institute	



Over **170** audiences across from  
**20** countries participate.



**GO SMART**  
GLOBAL ORGANIZATION OF SMART CITIES

## GO SMART ONLINE FORUM

### Smart Tech in Fighting COVID-19

**APRIL 29, 2020 16:00 - 18:00 (GMT+8)**  
**Hangout Meet Online Conference**

Join it to learn how technology can contribute to fighting COVID-19, and what solutions governments are looking for.

**Agenda**

- Opening and Introduction
- Policy and Demands
  - Taipei City/ Darwin City/ Economic Board Utrecht/ WeGO/ Government of Canada (Quebec) in Seoul/ Taoyuan City
- Solution Sharing - Industry Partners
- Summary
- Policy/ Demands & Discussion- New Taipei City
- Policy/ Demands & Discussion- German Trade Office Taipei
- Group Discussion and Q&A- Charles Reeds Anderson
- Conclusion

**Sign up here!**



**Partners**

APICTA ASVDA COMPUTEX InnoVEX STARTUP

gosmartcities@citiesgosmart.org

# Taipei x Fukuoka

*The LINE Official Account(OA) of 2 cities can message the users with useful city information.  
The first cross-border cooperation case using government official LINE account in the world.*



福岡市  
FUKUOKA CITY



TAIPEI  
臺北



福岡 × 旅遊





# MiTAC x Redland City/ Logan City

*MiTAC MiAIOT platform capable of collecting data from various IoT sensors, UAV/drones & edge devices, then utilizing federated ML to create predictive/prescriptive AI models recommending on when/where for most effective way and treatment.*



Mosquito Management  
for Redland city, Australia

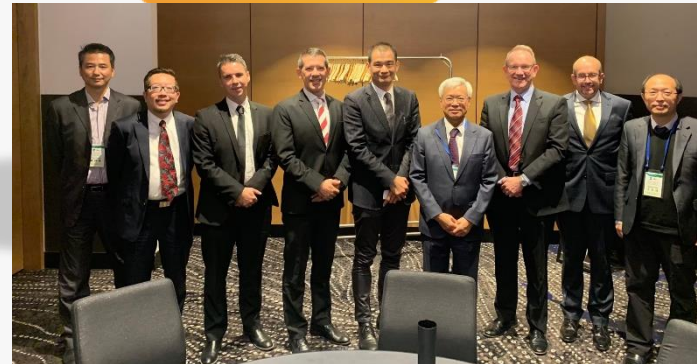


Redland  
CITY COUNCIL

Road Defect Detection  
Platform for Logan city,  
Australia



LOGAN  
CITY COUNCIL





# GO SMART Award

The stage to successful Inter-City PoC projects by a yearly award contest.

Stimulate active urban innovation knowledge sharing between cities and create the opportunity for other city stakeholders to showcase their solutions, products or services.



Now in the  
pipeline!

**Call for  
Awards  
2021**

till Nov 13<sup>th</sup>, 2020

**Finalists  
Announcement**

Jan 15<sup>th</sup>, 2021

**Online  
Pitching**

Jan 27<sup>th</sup>, 2021

**Award  
Ceremony**

March, 2021



# GS Award Winners

## 2019

**46** Submissions  
**12** Finalists  
**3** Winners



## 2020

**37** Submissions  
**12** Finalists  
**4** Winners

Organization	Project
Milton Keynes	UK Autodrive in Partnership with Coventry and the Motor Industry.
Tainan	The System of Road Excavation Management.
Taipei	A.I. cameras impacting urban design in Amsterdam and Taipei.

Organization	Project
Lidbot	The World's Smartest and Smallest Waste/Recycling IOT Sensor.
MiTAC	Joint Development Project Plan on Mosquito Management with Redland City.
New Taipei	An AIoT and Blockchain Application in Municipal Health Services.
Taichung	Road side parking spaces real-time information service.



**GO SMART Secretariat**  
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