

A nighttime photograph of the Taipei skyline, featuring the Taipei 101 skyscraper prominently on the left, illuminated with warm yellow lights. The city lights and mountains are visible in the background under a dark blue sky.

Taiwan ICT Development Outlook

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08/07/2016

Outline

1

Forward

2

International Rating

3

e-Life Style in Taiwan

4

Taiwan's Innovation Eco-system

5

Possible Areas of Cooperation

Breaking News July 17, 2016

Taiwan ATM Cyber Robbery Arrest



TECH CHANGING FACE OF SECURITY

Taiwan Says Foreign Suspects Arrested Over \$2 Million ATM Cyber Robbery

by Reuters JULY 17, 2016, 11:36 AM EDT



Who/What: International heist team used malware for illegal mega withdrawals of over \$2M USD in Taiwan.

When: July 9th-11th, 2016

Where: Taipei, New Taipei and Taichung, Taiwan.

Why/How: Heist team wearing masks attacked 41 ATMs operated by Taiwan's First Bank. They spent a few minutes at each of the machines before obtaining the equivalent of \$2 million USD.

They didn't use bank cards but gained control of the ATM machines with a "connected device." The ATMs were made by German manufacturer Wincor Nixdorf which confirmed that several of its machines in Taiwan were hacked in a "premeditated attack."

Key Takeaway: Due to Taiwan's public surveillance, cyber security and extensive CCTV systems, 3 of the suspects were captured **within 2 weeks** as well as the return of 1.5M USD. Surveillance images released by the bank showed masked robbers working in two-man teams targeting 41 ATMs belonging to the First Commercial Bank. After the theft was discovered, more than 1,000 ATMs of the same type targeted in the heist have been shut down by banks nationwide.

References: International heist team used malware for mega withdrawals.

Nicky Loh — Reuters

1. <http://fortune.com/2016/07/17/taiwan-atm-cyber-robbery-arrest/>
2. <http://money.cnn.com/2016/07/14/news/bank-atm-heist-taiwan/>
3. <http://www.ibtimes.sg/taiwan-arrests-three-foreign-suspects-over-2-million-atm-cyber-theft-2385>
4. <http://www.chinapost.com.tw/taiwan/2016/07/23/473141/Police-investigating.htm>

Behind the Theme: Public Surveillance

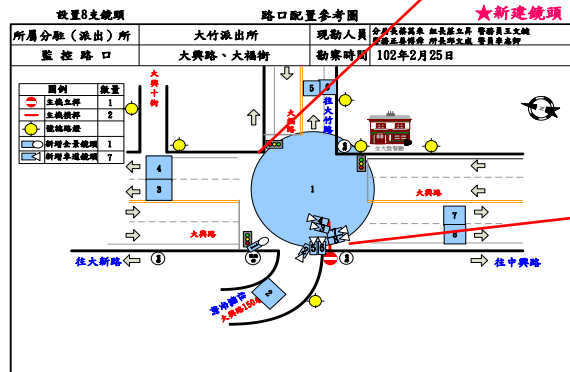
- 4/8/12/16 numbers of flexible 360 degree or fixed cameras can be installed on street junction
- Minimum 20 days record
- Remote monitor and control management are available
- Auto system devices condition and maintenance
- Street camera management (include remote management)
- Patens recognizing system (Car license plant, face...)
- GIS map platform POI
- Alert system



License number Detection

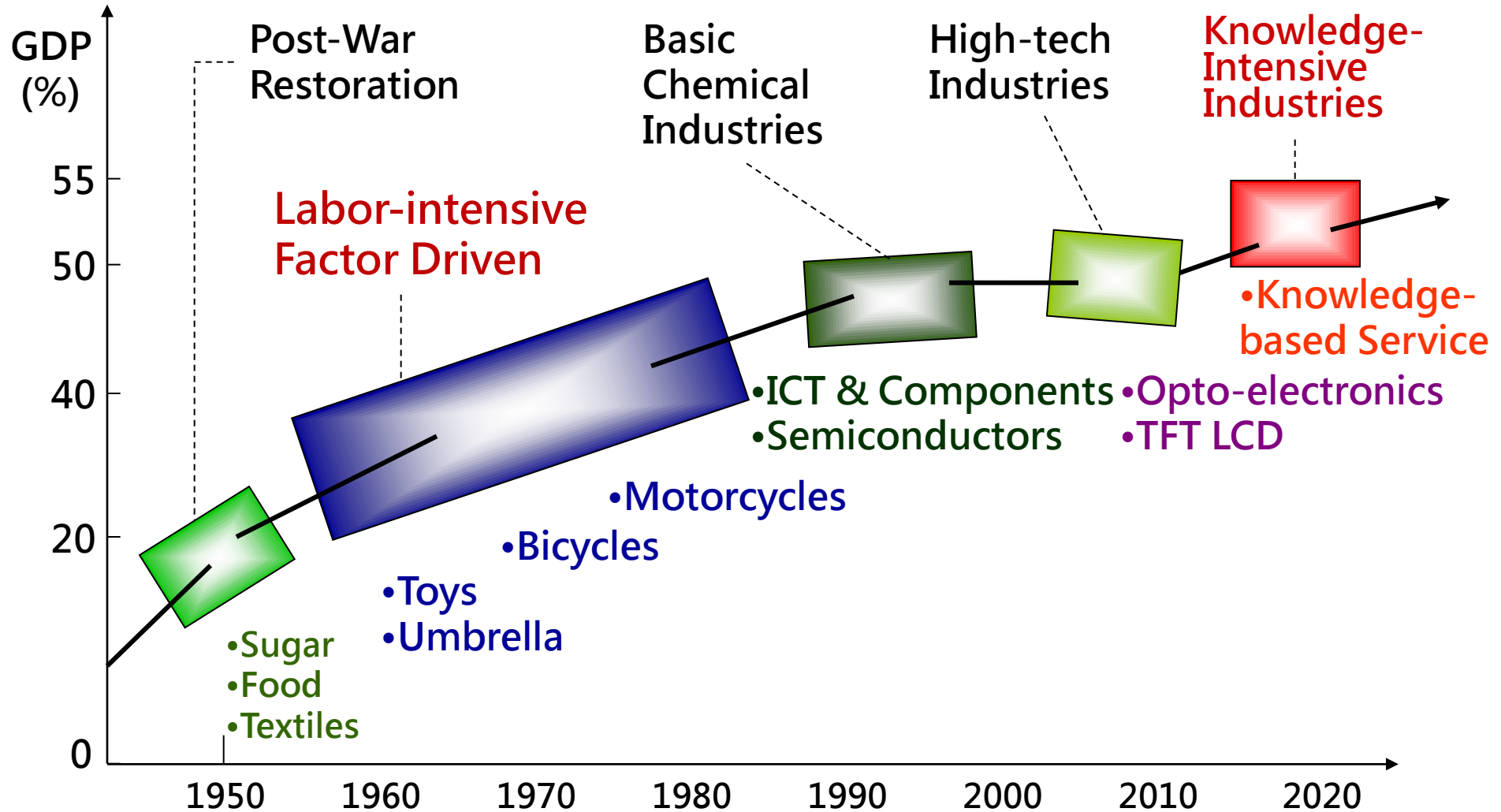


Face Detection













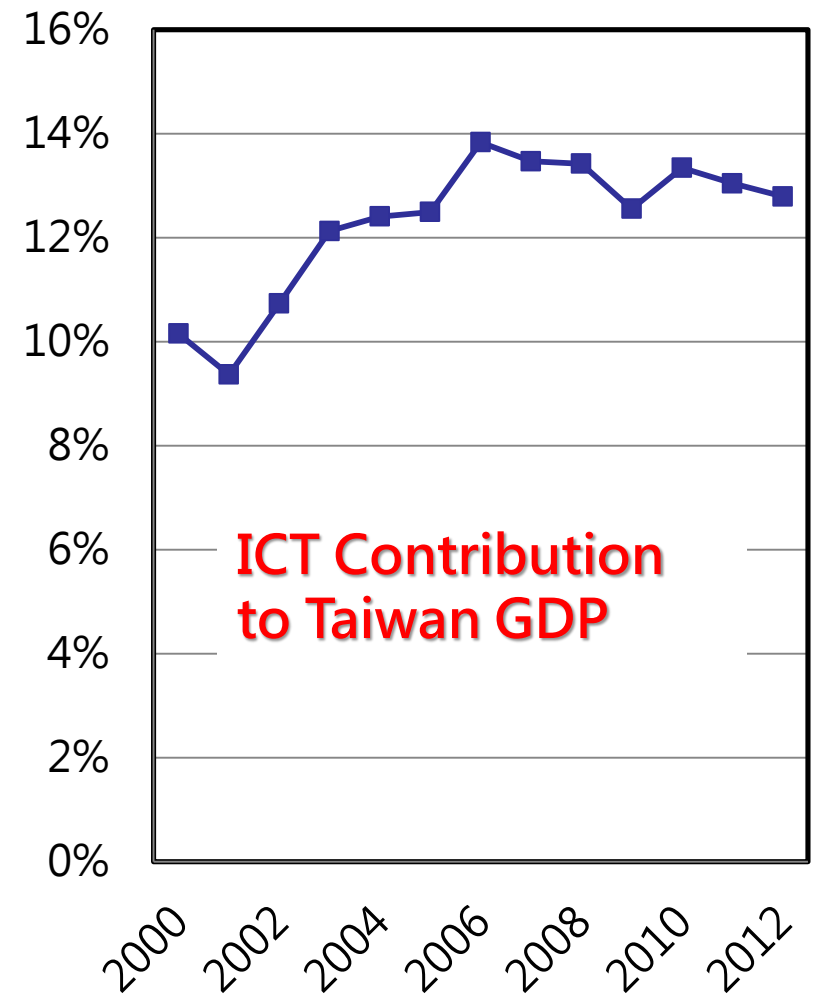
Source: III Alliance Partner – Chunghwa System Integration

Taiwan Industry Development History



WW leading ICT products

2014 WW Product		Mkt Share	
CPE(Customer premises equipment)	Cable		97.0%
	VoIP		86.0%
	DSL		60.0%
WLAN			88.0%
Server(System/MB)			85.9%
Motherboard			85.0%
Notebook PC			84.9%
LCD Monitor			66.5%
IP Phone			59.0%
Desk-top PC			50.3%



Source: MIC/III, Mar. 2015.

2

International Rating of Taiwan's Soft Power

Information Society Rank

Evaluated By		Ranking Index						
 WEF	2015 Networked Readiness	18	10	12	1	14	62	
 EIU	2010 Digital Economy	12	16	13	8	7	56	
	2011 Benchmarking IT Industry Competitiveness	13	16	19	3	19	38	
 World Bank	2012 Knowledge Economy Index	12	22	29	23	18	83	
BROOKINGS Brookings Institution	2015 Global E-Government	2	37	1	4	24	67	
 Japan Waseda U.	2015 e-Government	17	6	5	1	24	49	

•Source:As above, Compiled by FIND, III

IMD World Competitiveness

Rank	2010	2011	2012	2013	2014	2015
1	Singapore	Hong Kong, US	Hong Kong	US	US	US
2	Hong Kong		US	Switzerland	Switzerland	Hong Kong
3	US	Singapore	Switzerland	Hong Kong	Singapore	Singapore
4	Switzerland	Sweden	Singapore	Sweden	Hong Kong	Switzerland
5	Australia	Switzerland	Sweden	Singapore	Sweden	Canada
6	Sweden	Taiwan	Canada	Norway	Germany	Luxembourg
7	Canada	Canada	Taiwan	Canada	Canada	Norway
8	Taiwan	Qatar	Norway	UAE	UAE	Denmark
9	Norway	Australia	Germany	Germany	Denmark	Sweden
10	Malaysia	Germany	Qatar	Qatar	Norway	Germany
11	Luxembourg	Luxembourg	Netherlands	Taiwan	Luxembourg	Taiwan
12	Netherlands	Denmark	Luxembourg	Denmark	Malaysia	UAE
13	Denmark	Norway	Denmark	Luxembourg	Taiwan	Qatar
14	Australia	Netherlands	Malaysia	Netherlands	Netherlands	Malaysia
15	Qatar	Finland	Australia	Malaysia	Ireland	Netherlands
Korea			22	22	26	25
Japan			27	24	21	27

WEF Competitiveness Rankings (2014-2015)

Countries	WW	AP	Countries	WW	AP
Switzerland	1		New Zealand	17	5
Singapore	2	1	Belgium	18	
United States	3		Luxembourg	19	
Finland	4		Malaysia	20	6
Germany	5		Austria	21	
Japan	6	2	Australia	22	7
Hong Kong SAR	7	3	France	23	
Netherlands	8		Saudi Arabia	24	
United Kingdom	9		Ireland	25	
Sweden	10		Korea, Rep.	26	8
Norway	11		Israel	27	
United Arab Emirates	12		China	28	9
Denmark	13		Estonia	29	
Taiwan	14	4	Iceland	30	
Canada	15		Thailand	31	10
Qatar	16		Puerto Rico	32	

WEF Competitiveness Rankings (2014-2015)

Innovation Top 10 in WW 144 Economies	
Finland	1
Switzerland	2
Israel	3
Japan	4
United States	5
Germany	6
Sweden	7
Netherlands	8
Singapore	9
Taiwan	10

Smart City

7 cities out of all
20 cities in Taiwan are
recognized as
**International Smart
Cities** by ICF.



**Intelligent
Community
of the Year**



Taichung (2013)



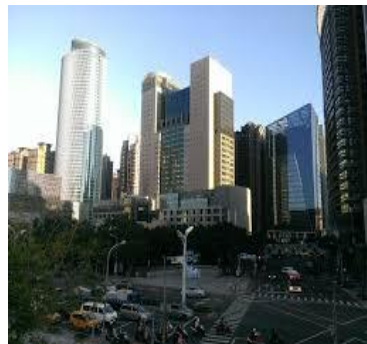
Taipei (2006)



**Intelligent
Communities
of the Year**



Hsinchu (2014)



New Taipei
(2014)



Taichung
(2013,2012)



Taoyuan (2013) Taipei (2006,2004)



ICF 5 indicators : Broadband connectivity,
Knowledge workforce, Innovation, Digital
inclusion, Marketing and Advocacy

Source : ICF

In Short, Taiwan is . . .

Friendly **IT**
Environment

- ◆ **# 1 Free Wi-Fi networks**
2014 UK Telegraph: World's most connected cities

Industrial
Chain of **HW-
SW** Integration

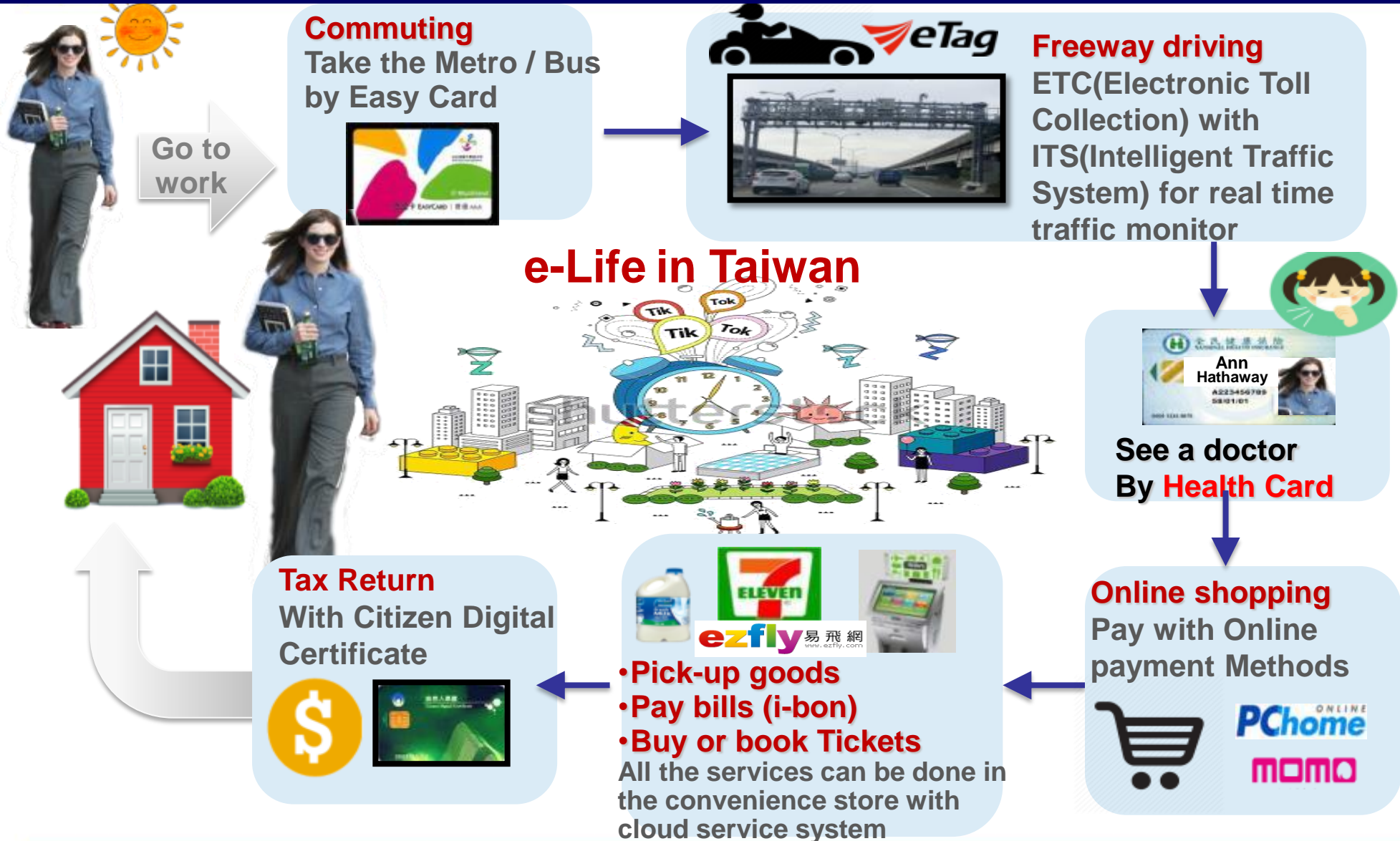
- ◆ **# 1 State of cluster development**
2012-2013 WEF Global competitiveness Report

High-Tech
Economy

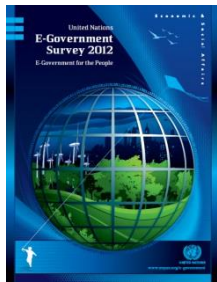
- ◆ **# 1 High-tech exports**
2013 IMD World Competitiveness Yearbook
- ◆ **51 innovation centers in Taiwan**
(Google, Intel, HP, DELL, SONY, MS, IBM)

3 e - Life Style in Taiwan

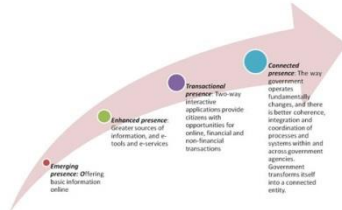
e-Life Style in Taiwan



Tax Filing



Stages of e-government

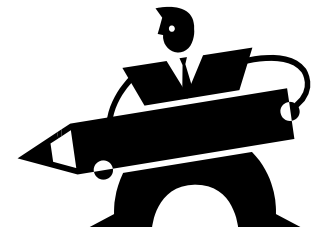


Stage III

Stage III

Stage I

Stage II



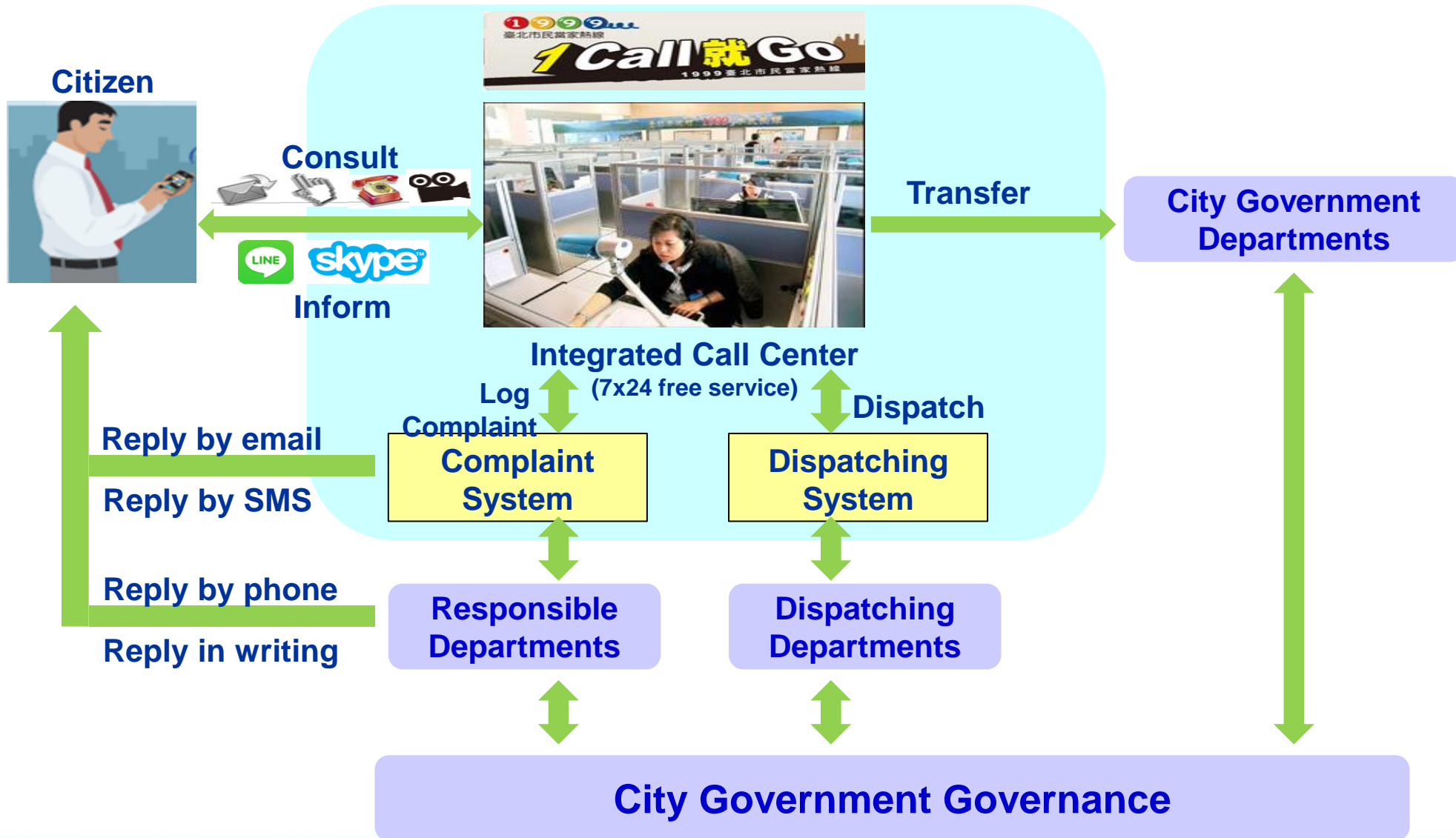
Description of Taxation Service

Download Tax Forms (and send back)

Online Declare and Pay Tax (Full Transaction)

Proactive Taxation Service (Pre-calculation) (Announcement)

1999 Taipei City Citizen Hotline--Service Operation



1999 Taipei City Citizen Hotline-- Service Areas & Key Facts

One stop integrated service for 51 Taipei city departments:

- **Parking & Traffic Information**
- **Towed Vehicle Appeal**
- **Notification of Traffic Control System Malfunction**
- **Preventive Health Maintenance**
- **Avian Flu Prevention Inquiry**
- **Report against Roadblocks**
- **Woman & Child Abuse Prevention**
- **Animal Protection**
- **Report against Government Integrity**
- **Report against Sexual Harassment**
- **Antidrug & Bullying Prevention**
- **Public Sewage Cleaning**
- **Report against Professional Hazards**
- **Tax Filing Information**

- **80+% citizen approval rate**
- **98.4% of calls responded within 10 sec.**
- **99.4% of calls resolved by front line agents**
- **2008/7/3~2016/5/31 accumulated**
 - **Service calls: 16,708,992**
 - **Accepted complaint cases: 1,115,557**
 - **Dispatched work orders: 2,255,163**
- **Sign Language video support for hearing impaired**
- **Monthly average:**
 - **calls: 175,884**
 - **Accepted complaint cases: 11,743**
 - **Dispatched work orders: 23,739**

Smart Bus, Smart Bus-Stop



Trace the bus, and display bus schedule

Bus Stop Information

Smart bus display board



Wi-Fi in Bus



Source: IIT Alliance Partner - Chunghwa System Integration

Smart Bus is Part of Taiwan Telematics Sector

Application



Advertising on bus



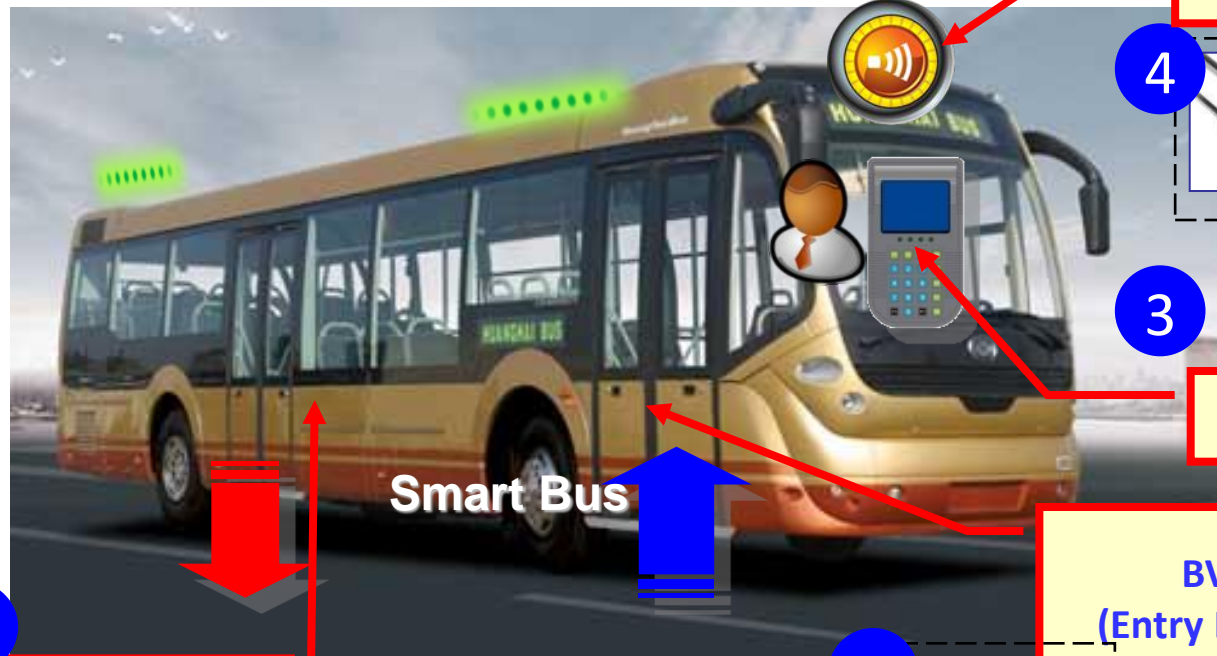
LED Display



MOD on Bus



Intelligent Stop



Smart Bus

GPS

4



3

Driver Console

BV (Entry Door)

2

CSC Reader*2 (Back Door)

Wi-Fi



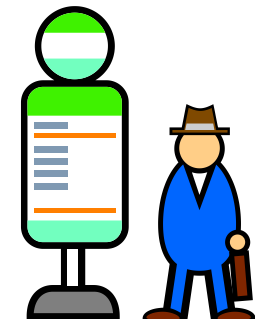
1



ETM



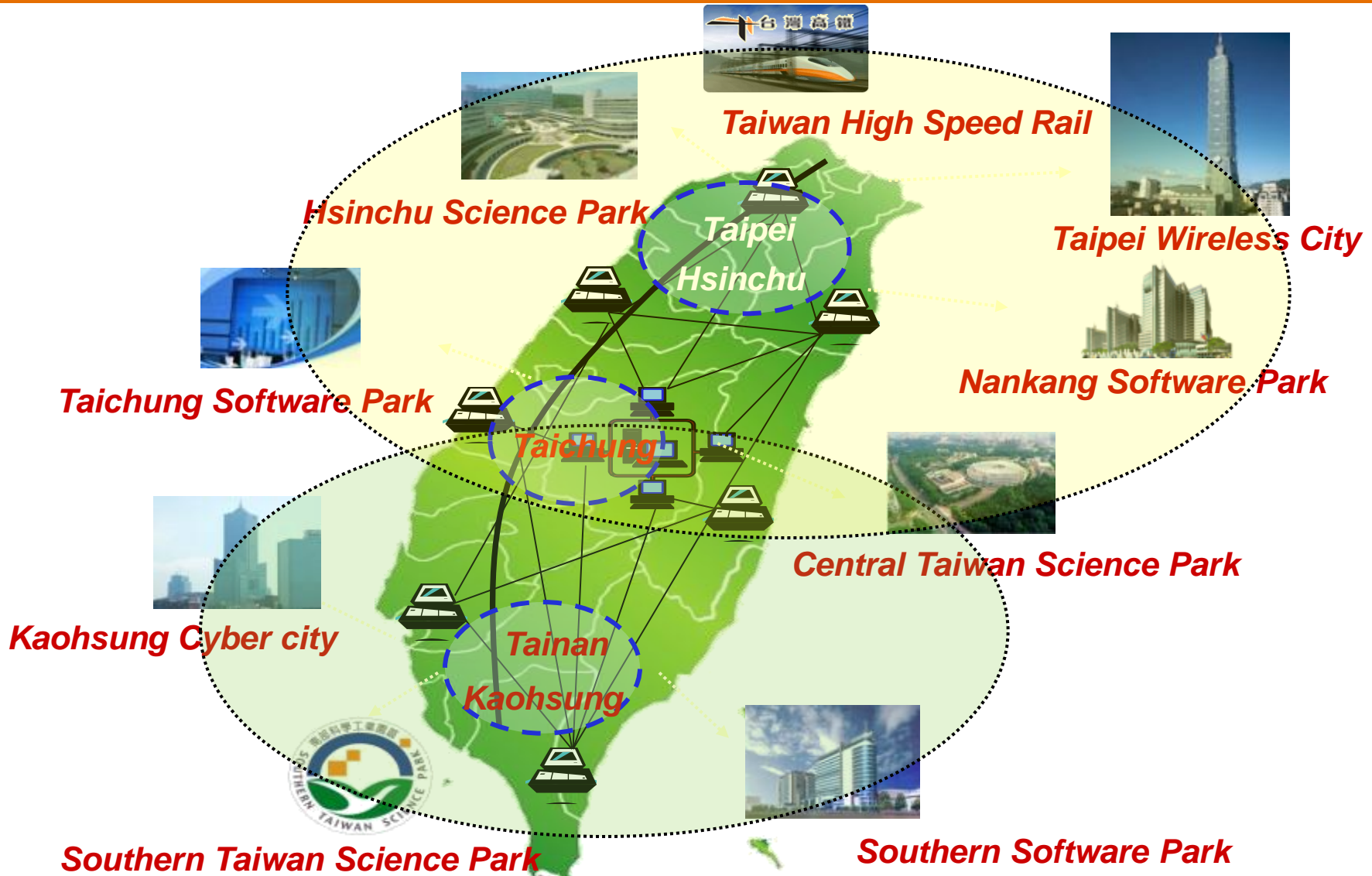
Validator



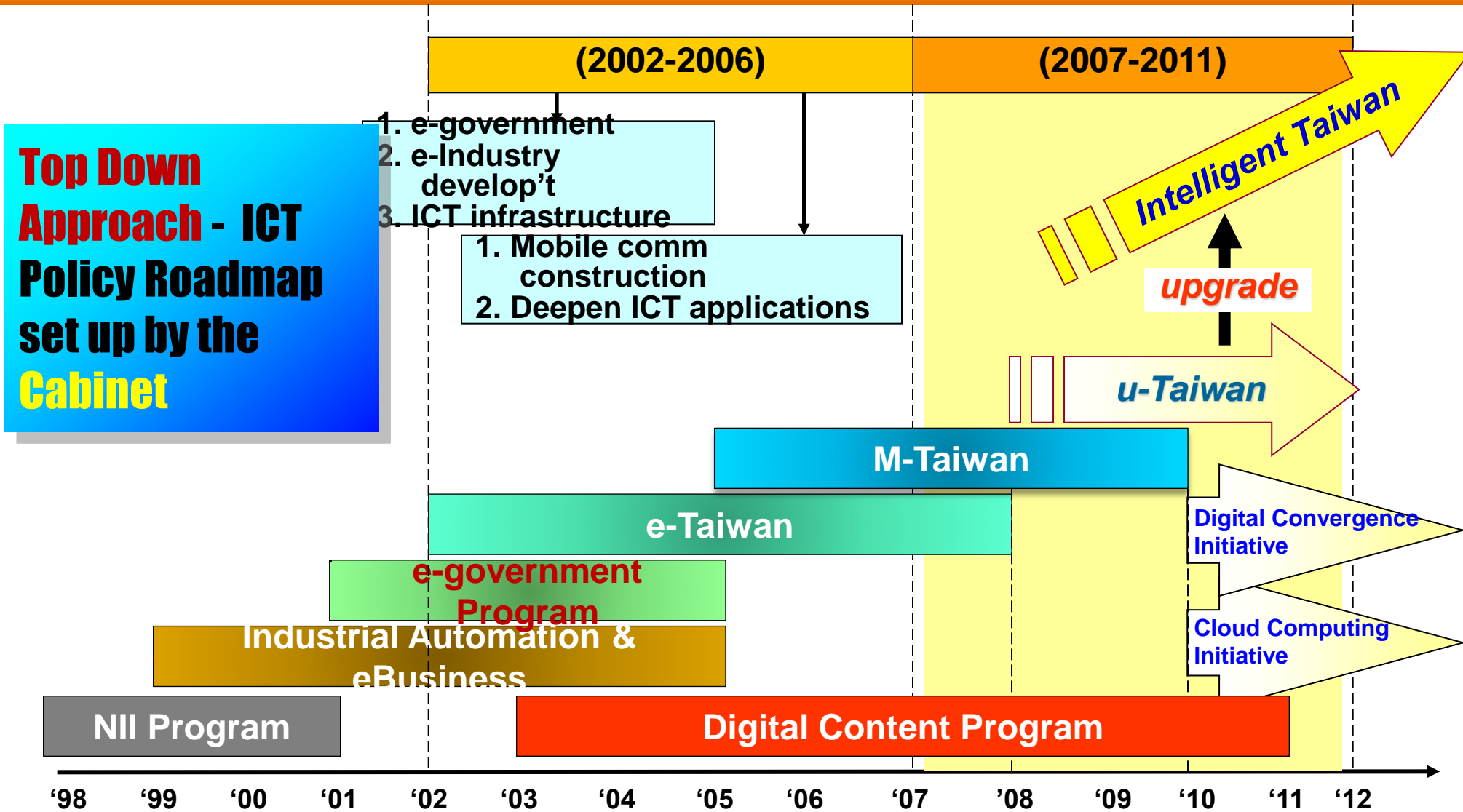


4 Taiwan's Innovation ecosystem

Solid ICT Infrastructure



National Innovation Programs



Innovation and entrepreneurship ecosystem in Taiwan



Be A Hubber。當個「好巢」人 © 2014

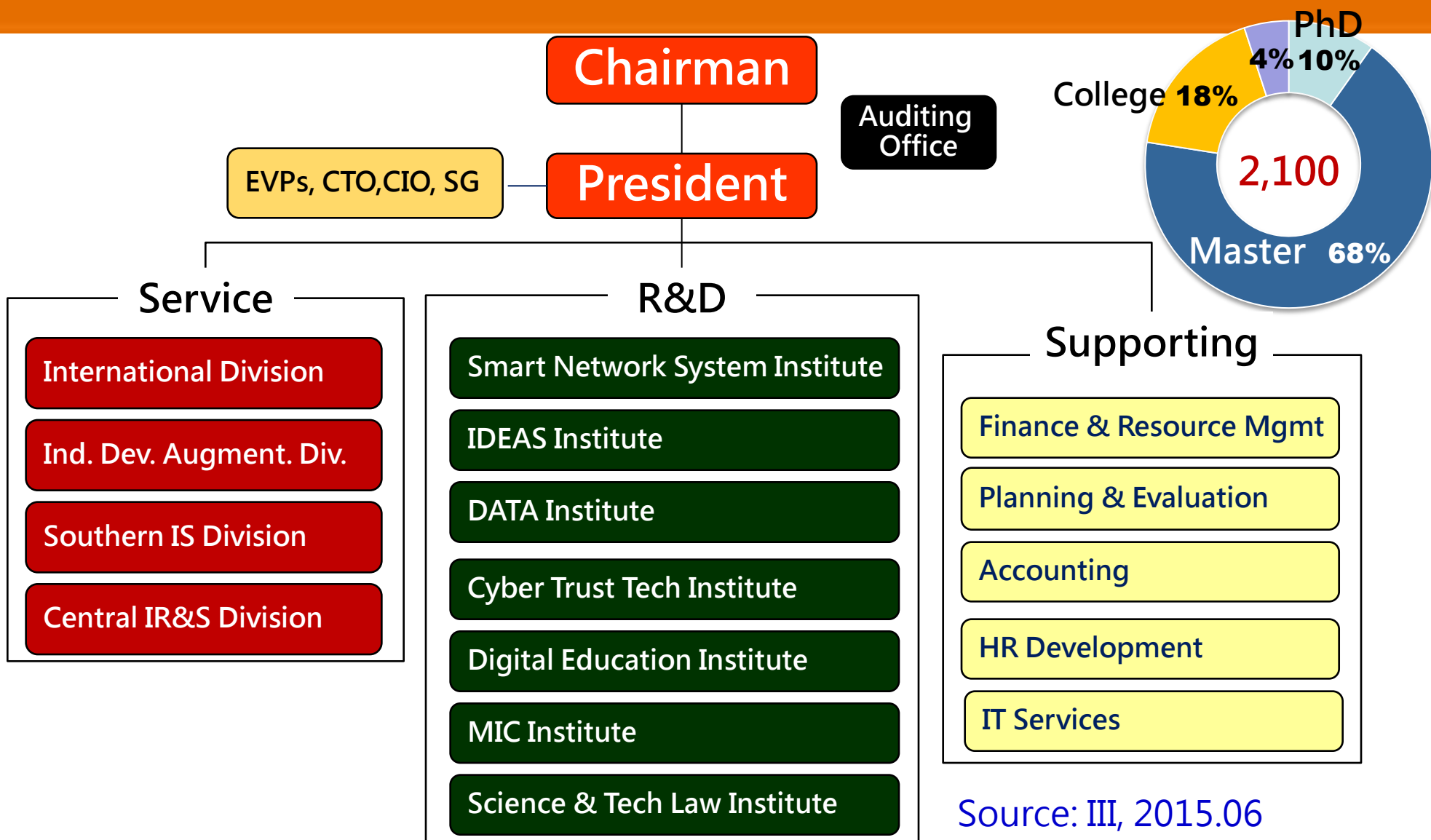
Government's Role

- ◆ **Organization and strategic planning**
- ◆ **ICT Infrastructure and environment**
- ◆ **National ICT projects**
- ◆ **Marketing intelligence for ICT industry**
- ◆ **Incentive Program**
- ◆ **Public-private partnership**



III's role in Taiwan's innovation ecosystem

III's Organization & Manpower



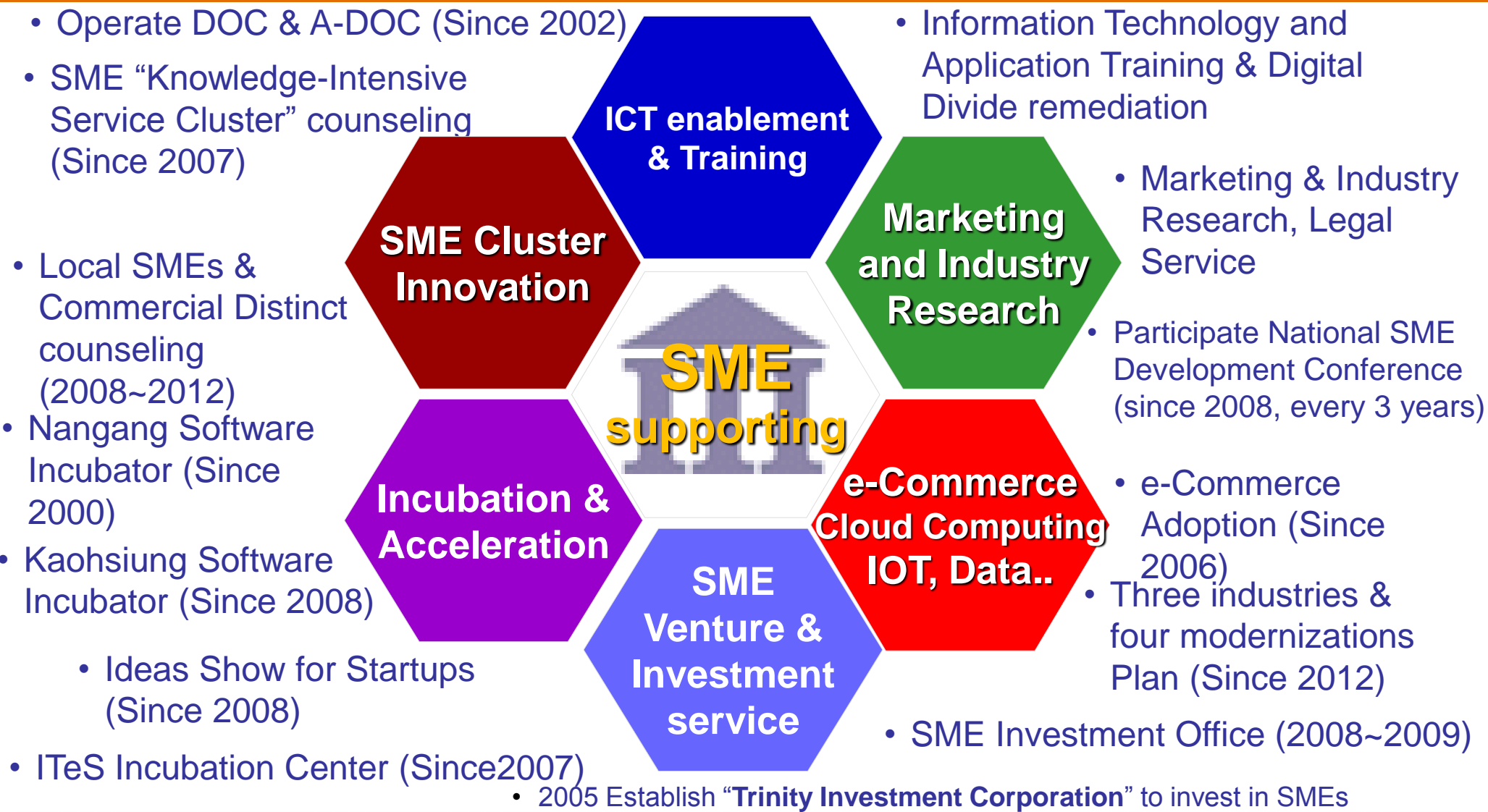
Source: III, 2015.06

Heart of Taiwan's ICT Revolution



As the bridge between gov't and industry to facilitate the ICT enabled innovation ecosystem in Taiwan.

Role of Iii in the SME's Development of Taiwan



4 Incubation Centers

Kaohsiung software incubator
Startup From 2010
Space : 3,100 m² / 30 units



Strait SME Innovation Park
Startup From 2013
Space : 10,000 m² / 50 units



ITeS Incubation Center
Startup From 2007
Space : 2500 m² / 15 units



Nangang Software Incubator
Startup From 2000
Space : 8,600 m² / 80 units



Vietnam Incubation Center
From 2008



Industry Incubation

- Operate incubation centers specializing in ICT for 15 years.
- Professional counseling, International links and Attract investment
- 2013 AAB Best Incubator of the Year Award

APEC Digital Opportunity Project

101 Digital Opportunity Centers are established in **10 APEC member economies**, that have trained over **730,000 people**, fostered **3,200 SMEs** starting new business, and assisted **4,000** street kids, drop outs, orphans back to schools.



ADOC in Malaysia

- **ADOC cooperation since 2010**
- **6 centers established and more than 2,800 people trained**
- **ADOC Partners: Ministry of rural & regional development, Malaysia blind association**



Achievements

New Availability

- Packaging redesign
- Kedah cluster shopping bag
- New Food manufacturing machine recommendation
- New gifts package design
- Videos for online marketing

More Capacity

- Knowledge sharing and utilization among members
- Knowledge of using social media for promotion and Internet marketing
- Confidence in sell products through e-book sales kits

New Channel

- Internet Channel
- Cross collaboration between food processing & tourism clusters
- Visitor's passport joint promotion package
- Exhibition participation

Result



- **The power of cluster touches all members**
- **Utilize ICT, members feel that they can do business in a totally new approach**
- **The efficiency of the production increases**
- **Members of the cluster saw the power & effects through ICT and social media**

ADOC SME Cluster Pilot Project

- Establish **value-added business cluster** by leveraging ICT tools in Peru & Malaysia



5 Possible Areas of Cooperation

Opportunity

for Taiwan and Malaysia

All But Disaster Prevention System?

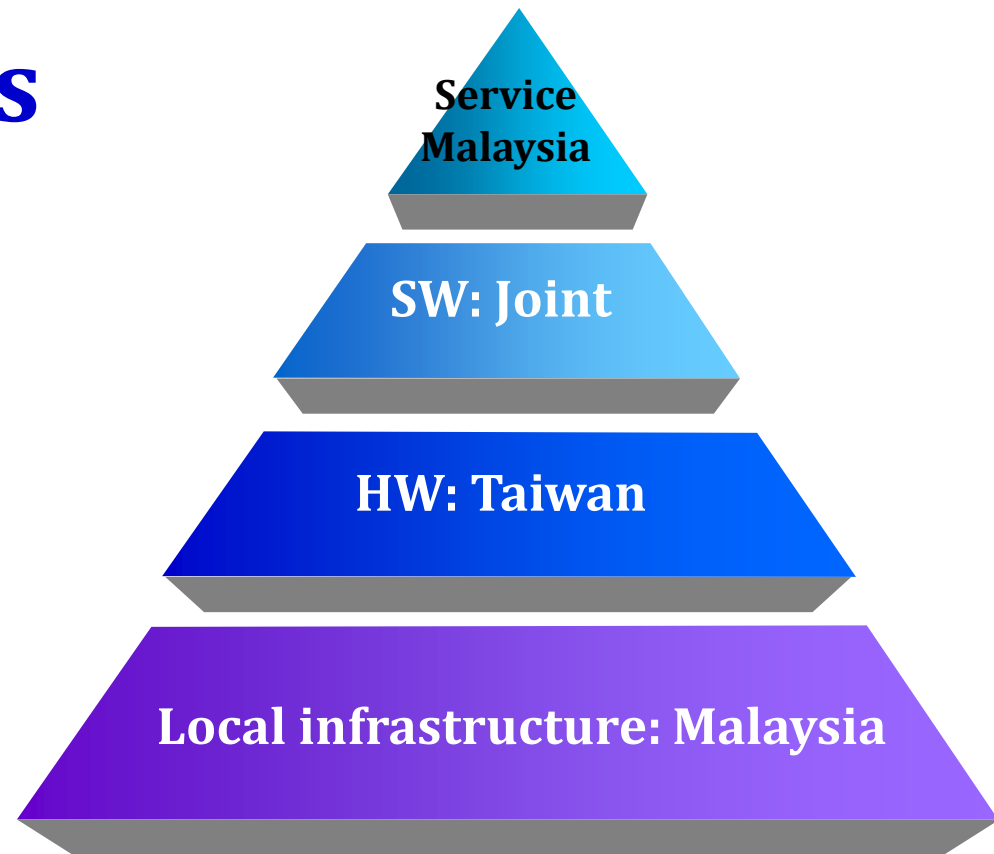
- **Cloud Computing**
- **Internet Of Things**
- **O2O**
- **Big data applications**

- **CRM**
- **Smart library**
- **Smart campus**
- **Smart tourism**
- **Smart energy**



Why Taiwan your strategic partner?

- **Total solutions**
- **Friendship**
- **Reliable**



Conclusion

**III is one of the major planners and facilitators of Taiwan's ICT development. We are more than happy to work with you to create win-win !
Let us work together in the near future!**

