Smart Pole and Surveillance in City Governance

Chunghwa Telecom
2021.07.28

中華電信
Chunghwa Telecom

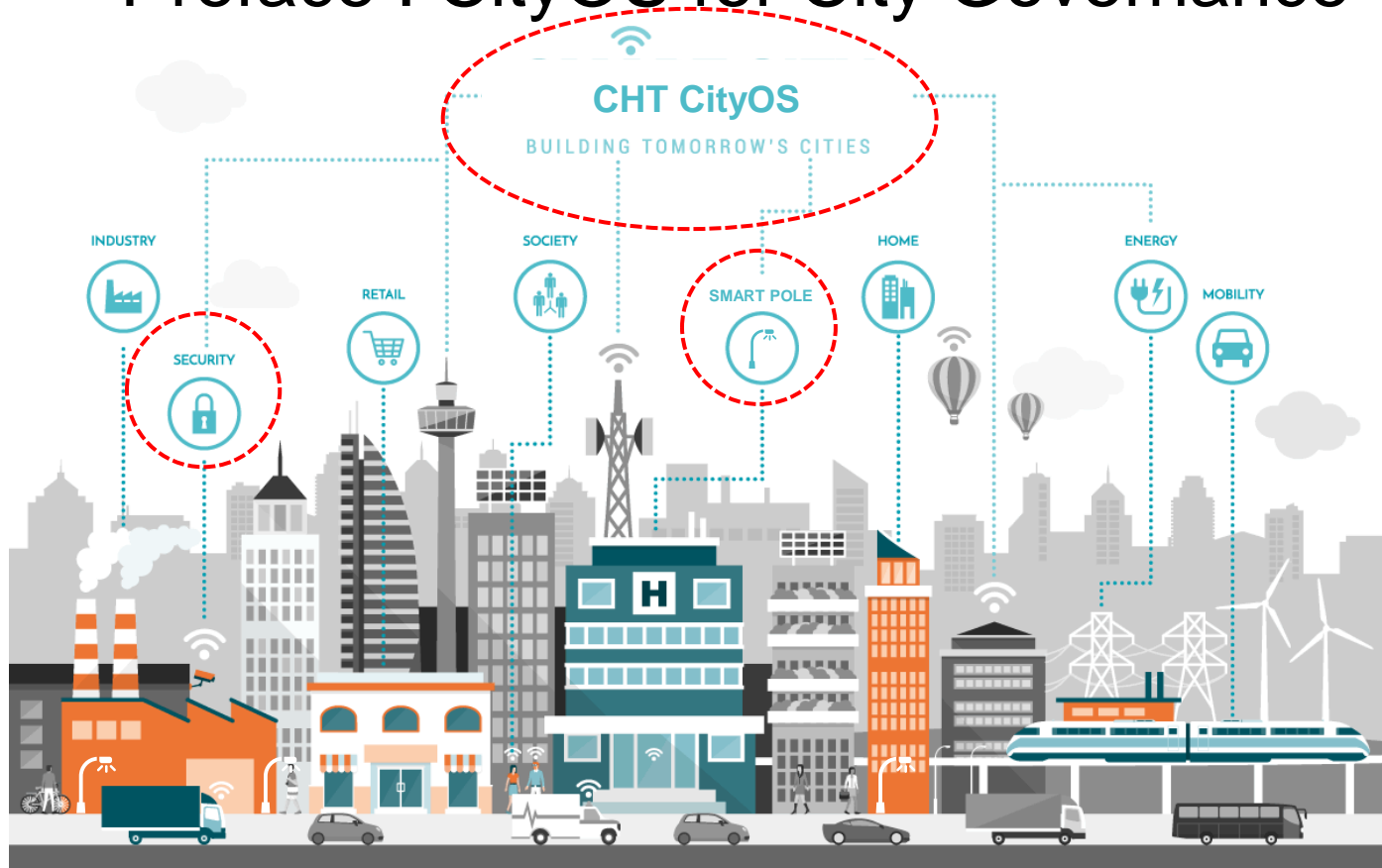# CONTENT

◆ **Preface**

◆ **What City Governance Need**

◆ **CityOS + Smart Pole + IVS Features**

◆ **CityOS + Smart Pole + IVS Benefits**

◆ **Successful Cases**

Preface : Smart City Solutions

Smart Pole

Drone Inspection

Surveillance (IVS)

Smart Meter

IDC / Cloud

Smart Parking

Cyber Security

Mobile Network for HSR

Smart Hospital

Country Healthcare Platform

E-VAT refund

Smart Retail

Smart Manufacturing

Intelligent Operations Center

Smart Agriculture

Digital Park

中華電信
Chunghwa Telecom

3
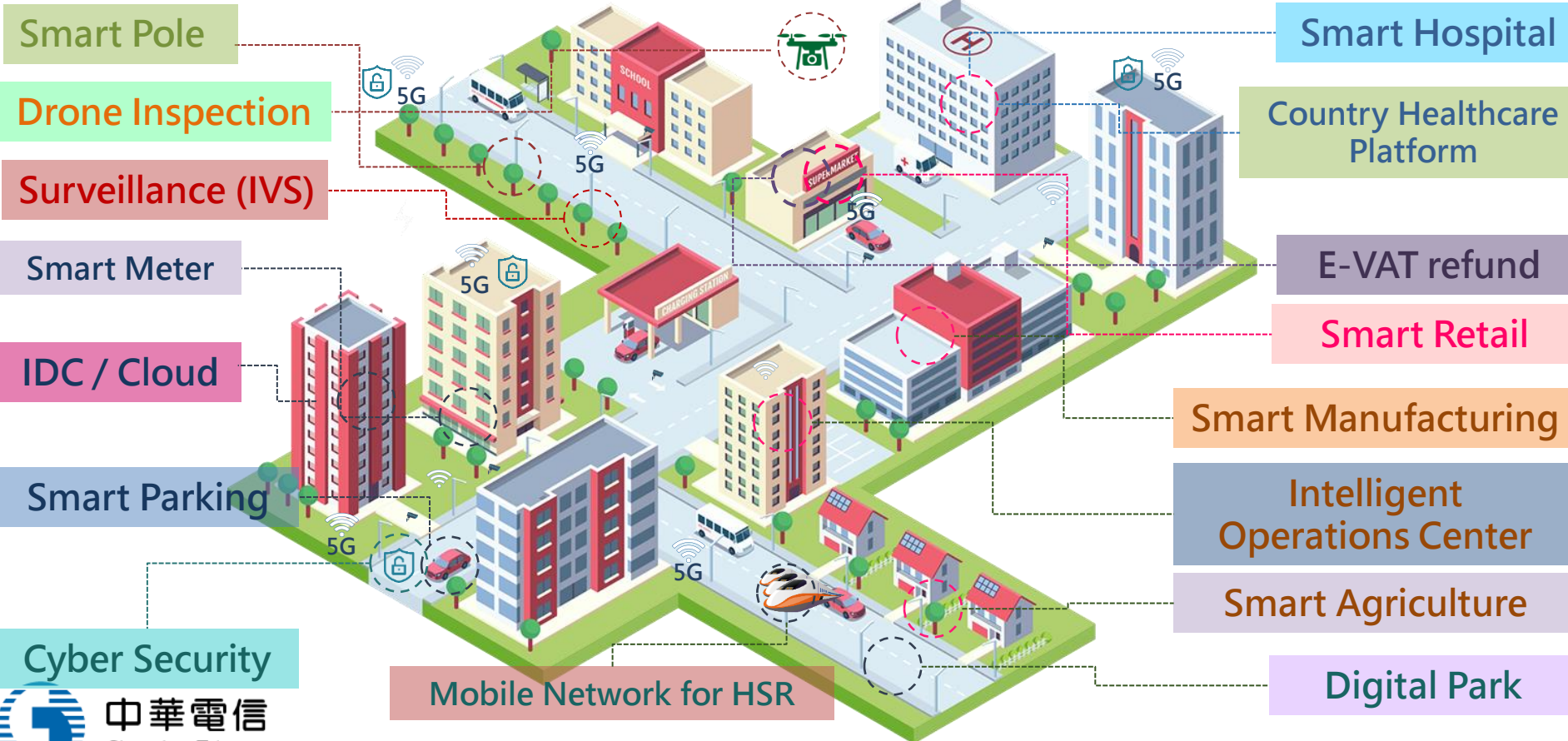
Preface : CityOS for City Governance

What City Governance Need

- What government need is to have a system which policemen and government employees can use easily. This system must be able to display the most current information in order to support the central team to make the right city governance decisions

- Regulations and city projects are crucial for the government. There are needs in effective tools to carry on orders, support city projects, and act on emergency situations

Easy To Use

Effective

Efficient
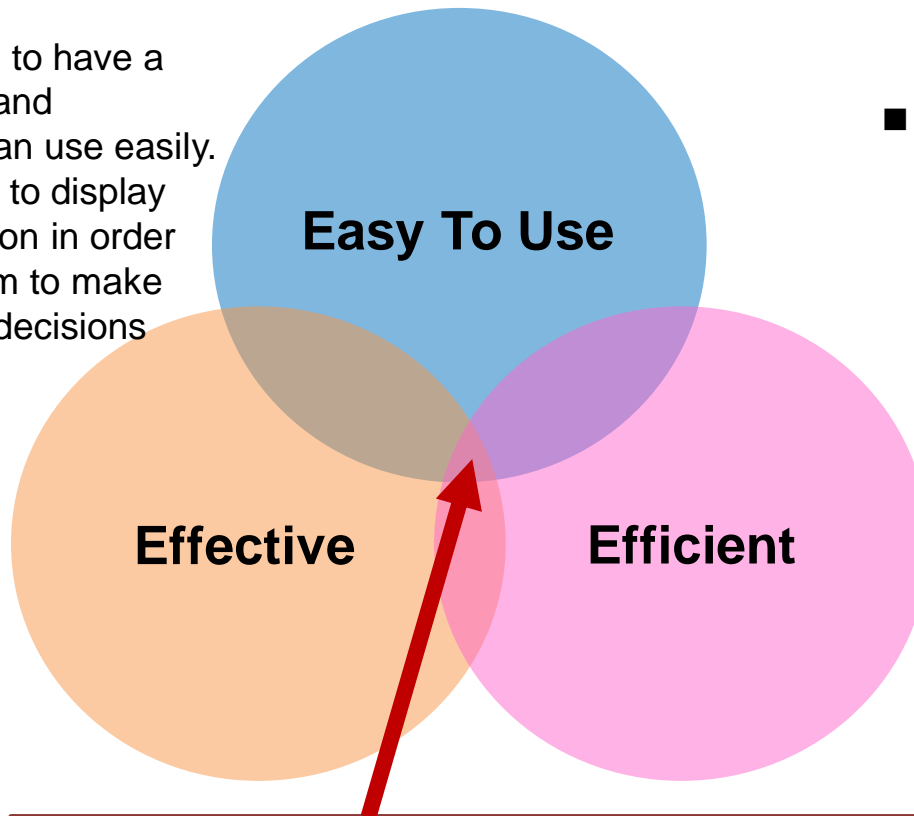
- Annual budget for city government is usually very limited, and government needs to have balanced solutions that can save cost on equipment and labor fees while keeping everything in working order.

CHT : CityOS + Smart Pole + IVS

中華電信
Chunghwa Telecom

CityOS

Architecture
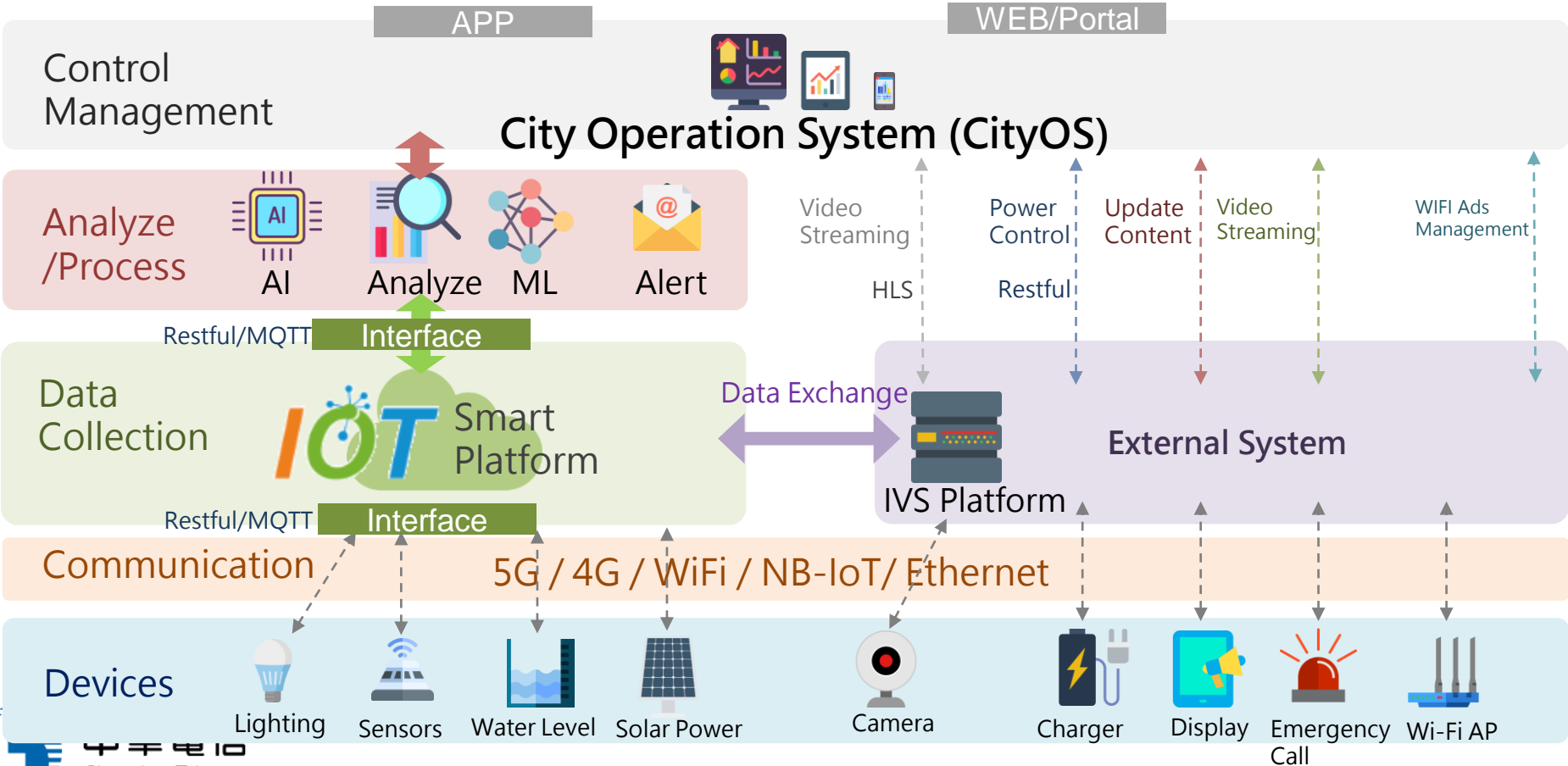
IoT Platform

■ **The IoT platform offers a simple, fast and safe service and environment, and diverse application elements and protocols. It reduces the maintenance cost of equipment connection and enhances the implementation efficiency.**

Smart Pole

Intelligent Lighting
-Brightness Monitoring
-Power Consumption Analysis

Video Surveillance
-Vehicle Recognition
-Human Recognition
-Item Recognition

Digital Signage
-Advertisement
-Government Messages

Charging Station
-EV Charger
-EM Battery Exchange

Weather Station
-Air Quality Monitoring
-Environment Monitoring

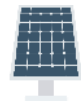### Wireless Network
-4G/5G Small Cell
-Wi-Fi Hotspot

Emergency Call
-Field contact with the monitoring center

Water Level Detector
-Water level detections
-high water level alert

Solar Power
-Green Energy
-Backup Power Source

8m

6m

4m

2m

0m

中華電信
Chunghwa Telecom

Intelligent Video System (IVS)

Video Streaming

- Support Multi-Screens
- Electronic Map Integration
- Support Looping Views

History Playback

- Support Cloud or On-Premise
- Time Selection & Screenshots
- Support Multi-Clearance Levels

Image Recognition

- Human Recognitions
- Vehicle Recognitions
- Item Recognitions

Law Enforcement

- Traffic Violation Detection
- Traffic Control Integration
- Vehicle Tracking

Smart Integrations

- Water Level Measurement
- Electronic Fence
- Smart Pole

Platform Management

- Installation Management
- Camera Diagnosis
- Repair Notifications

中華電信
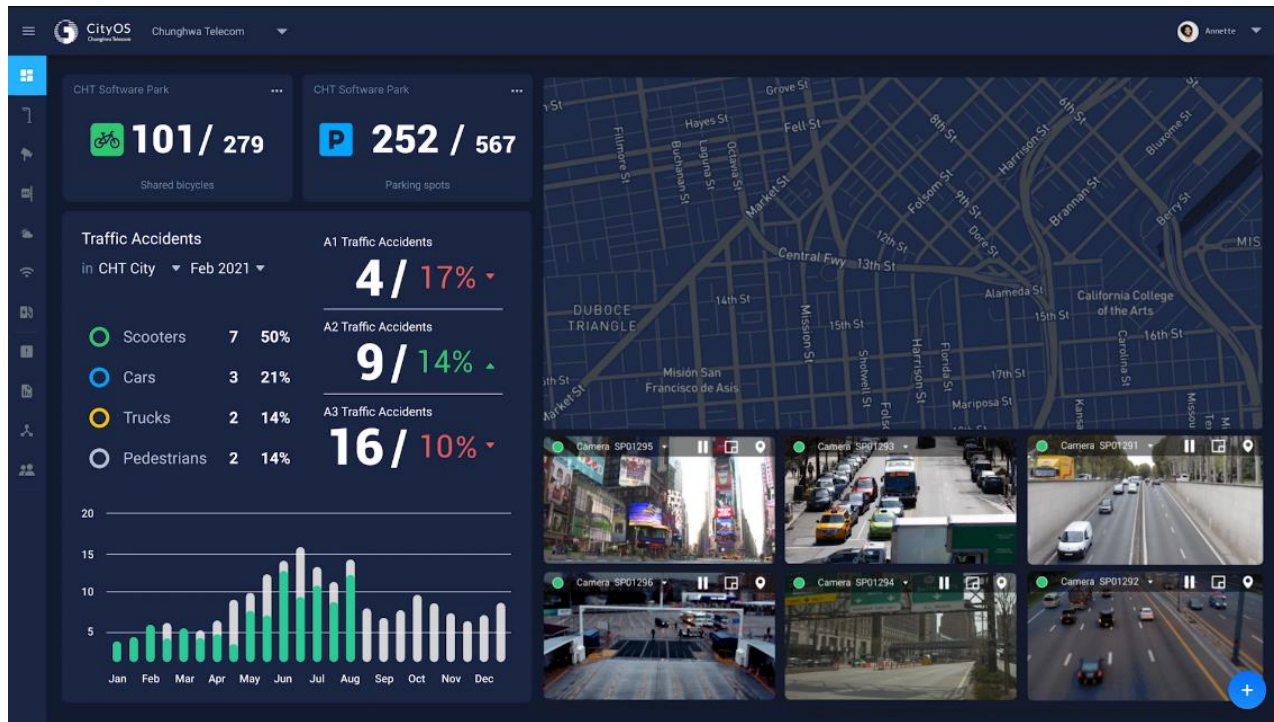ChunghwaTelecom

10

CityOS Benefits

1 React on Real-Time Information Around the City

2 Acquire Crucial Data from Event Trigger Operations & Notifications

3 Reduce Labor by Resource & Maintenance Automation

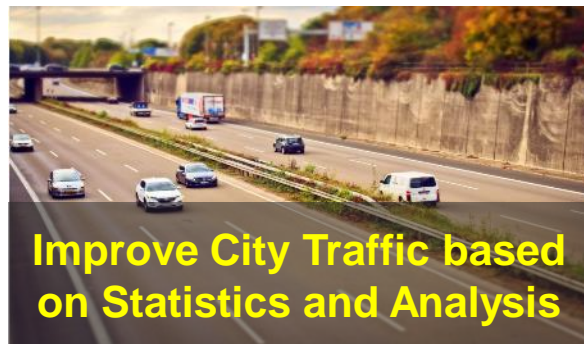# Smart Pole Benefits

Analyze Population Heat Map to Provide Commercial Services

Reduce Labor Cost by System Automation

Detect Air and Environment to Find Out Pollution Source

Improve 5G Mobile Network Receptions

中華電信 Chunghwa Telecom

IVS Benefits

Track and Locate Suspicious Vehicles

Improve City Traffic based on Statistics and Analysis

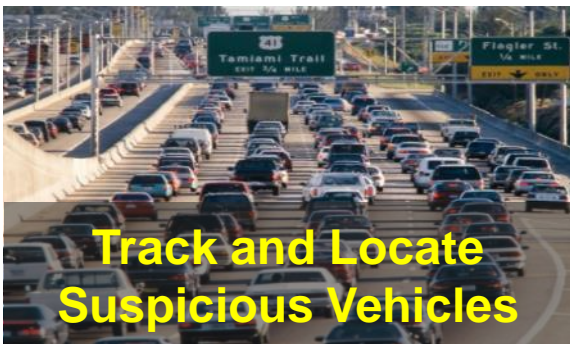**Issue Traffic Tickets by Law Enforcement**

Enhance Public Safety by Electronic Fence

中華電信
Chunghwa Telecom

Smart City Successful Cases in Taiwan

■ Chunghwa Telecom and Tao-Yuan City Government worked together and won the first-place award in ICF smarty city forum in 2020

桃園市政府
Taoyuan City Government
Taoyuan City Government

2018 TAICHUNG WORLD FLORA EXPOSITION
2018 Taichung World Flora Expo

臺中市政府
TAICHUNG CITY GOVERNMENT
Taichung City Government

Kaohsiung
高雄市政府
Hamasen Smart Street Light

和發產業園區
Ho Fa Industrial Park
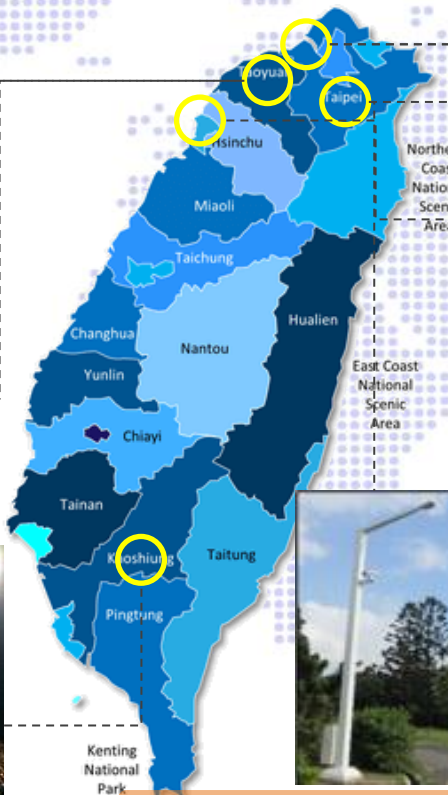Hofa Industrial Park

中華電信
Chunghwa Telecom

Smart Poles Successful Cases in Taiwan

2016 Taoyuan Industrial Park

2017 Taoyuan QingPu Area

2018 Kaohsiung Hamasen
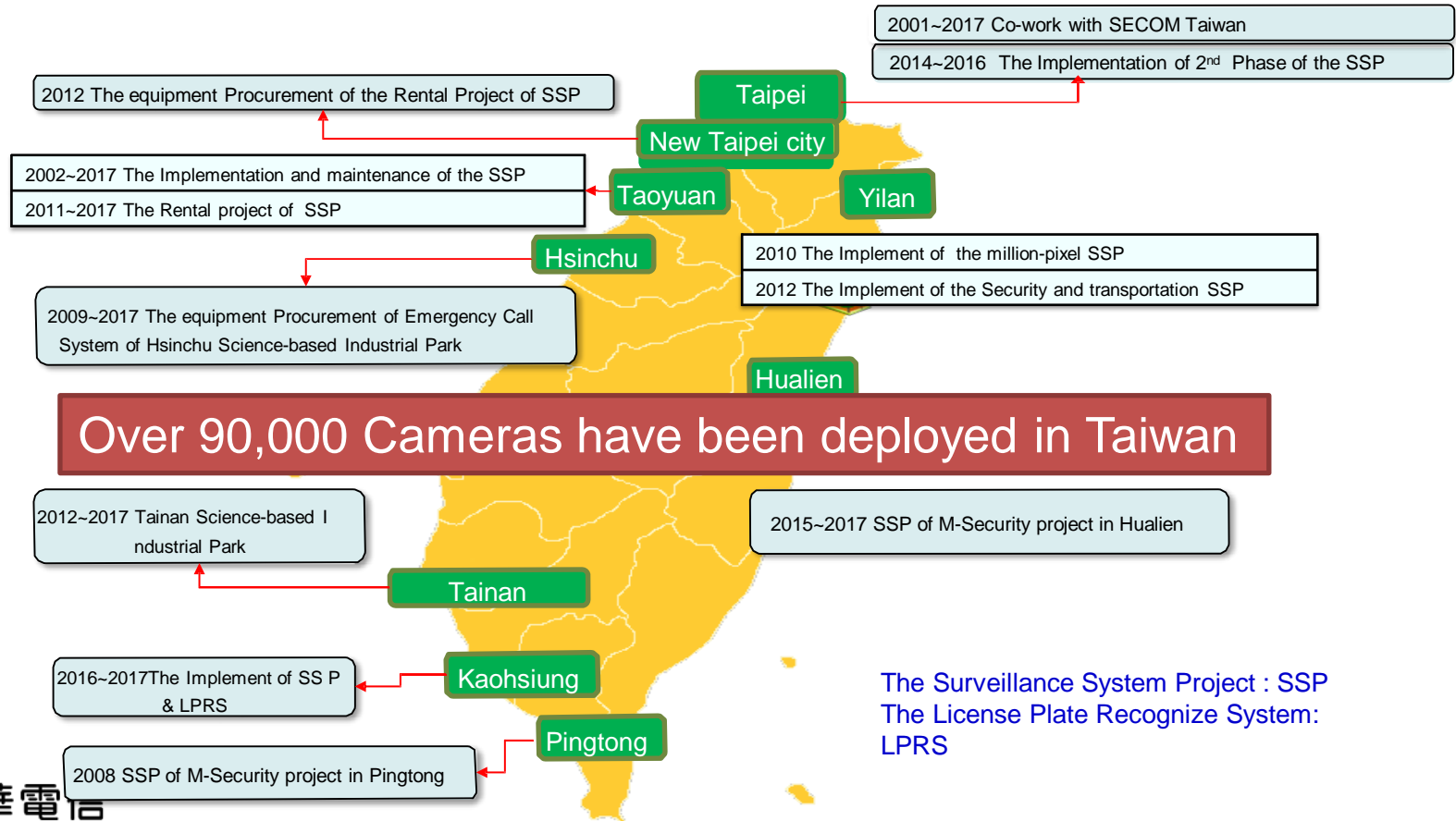
2018 Tamsui Customs Wharf

2019 Hsinchu NanLui Wharf

2018 Danhai light rail

2017 TAF Innovation Base

2016 CHT Training Institute

中華電信
Chunghwa Telecom

IVS Successful Cases in Taiwan

2001~2017 Co-work with SECOM Taiwan

2014~2016 The Implementation of 2nd Phase of the SSP

2012 The equipment Procurement of the Rental Project of SSP

Taipei

New Taipei city

2002~2017 The Implementation and maintenance of the SSP

2011~2017 The Rental project of SSP

Taoyuan

Yilan

Hsinchu

2010 The Implement of the million-pixel SSP

2012 The Implement of the Security and transportation SSP

2009~2017 The equipment Procurement of Emergency Call System of Hsinchu Science-based Industrial Park

Hualien

Over 90,000 Cameras have been deployed in Taiwan

2012~2017 Tainan Science-based Industrial Park

2015~2017 SSP of M-Security project in Hualien

Tainan

2016~2017The Implement of SS P & LPRS

Kaohsiung

Pingtong

The Surveillance System Project : SSP
The License Plate Recognize System: LPRS

2008 SSP of M-Security project in Pingtong

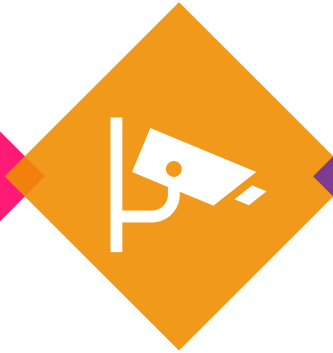中華電信 Chunghwa Telecom

16

Summary

■ **Smart Pole and IVS Solutions by Chunghwa Telecom is Easy to Use, Effective, and Efficient for city governance**
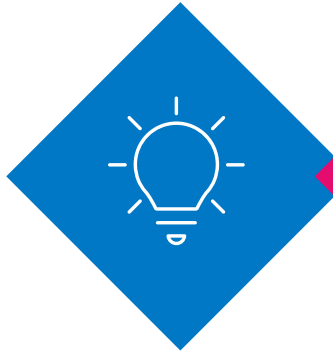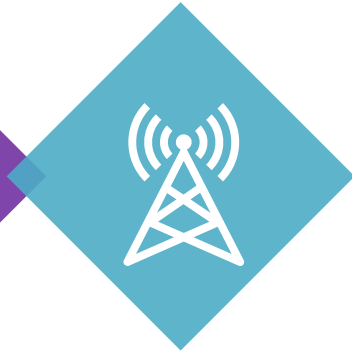

Major Benefits:
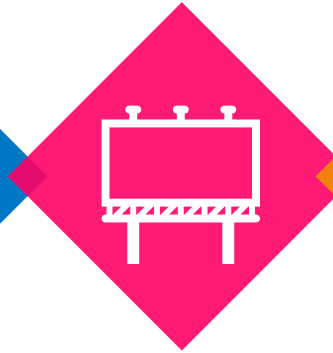
| 70% Energy Savings | Display Important Information | Enhance Public Safety | Analyze Air Data and Detect Pollution | Improve Network Communications |

Chunghwa Telecom

Thank You