

# KAOHSIUNG

## Smart City Development



**KPMO Stanley Wang**  
Kaohsiung, Taiwan

# KAO HSIUNG

高雄

The largest city in southern Taiwan  
Kaohsiung has both sea and air ports

Population

2.72 million

Area

2,952 km<sup>2</sup>



# Kaohsiung City is transforming from an Industrial City to a Smart & Sustainable City



# Semiconductor Manufacture Corridors in South Taiwan

from design,  
manufacturing, to  
packaging and testing  
form a complete  
semiconductor chain



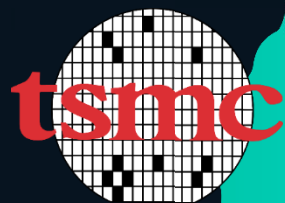
Kaohsiung Science Park

Qiaotou Science Park

Nanzih Technology Park

Kaohsiung Bay  
Technology Innovation Park

# 100+ Semiconductor Supply Chain form cluster



8 IC Manufacturing

IC design



16 IC Packaging & Testing

16 IC Equipment

44 Materials R&D





# 5G AIoT Industrial Cluster Kaohsiung Bay Area

**130+** companies move in  
**US\$ 1 billion+** output value

Platform  
Operation



System  
Service



Innovation  
Application



# Public-Private Partnership

Mayor

Smart City Promotion Committee

Smart City Promotion Working Group

Department of Transportation

Department of Health

Public Works Department

Marine Bureau

Agriculture Department

Fire Bureau

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ICT、  
5G+AIoT  
Industries

ICT、  
5G+AIoT  
Industries

Smart City Project Management Office  
(KPMO)

# *City As Living Lab*



Over **50** Applications **43** Awards



# Awards & Recognitions



Year		Domestic Awards	
International Awards		Domestic Awards	
2024	➤ ASOCIO Public/Private Partnership Award	2024	➤ Smart City Innovative Application Award-Smart Transportation
	➤ ASOCIO Emerging Digital Solutions & Ecosystem Award		➤ Smart City Innovative Application Award-Smart Governance
	➤ WITSA ICT Excellence Award-Startup Ecosystem Award		➤ Cloud Computing & IOT Award-Outstanding Application Award
	➤ IDC 2024 Taiwan Winner : Special Award for Smart Cities-Best in Citizen Wellbeing		➤ ITS Taiwan Application Awards
	➤ IDC 2024 the Asia/Pacific Regional winner : Special Award for Smart Cities-Best in Citizen Wellbeing		➤ Government Service Award - Digital Innovation Award
2023	➤ Seoul Smart City Prize-Special Mention in Partnership with GGGL	2023	➤ City of Excellence Award-environmental group-Preferred
	➤ ASOCIO ICT Award-Health Tech Award		➤ City of Excellence Award-social progress group-Preferred
	➤ WCIT WITSA ICT Excellence Award-Outstanding Contribution Award		➤ Smart City Excellence Contribution Award-Smart Transportation
	➤ AFACT eASIA Award Sustainability & Circular Economy Gold Award		➤ Smart City Innovative Application Award-Smart Security
	➤ GO SMART Awards		➤ Smart City Innovative Application Award-Smart Transportation
2022	➤ Gartner Asia-Pacific-Government Digital Innovation Service Awards	2022	➤ Cloud Computing & IOT Award-Outstanding Application Award
	➤ WITSA ICT Excellence Award-Outstanding Sustainability Development Award		➤ Smart City Excellence Contribution Award-Smart Service
	➤ WITSA ICT Excellence Award-Outstanding Digital Opportunity Inclusion Award		➤ ITS Taiwan Application Awards
	➤ ITS Hall of Fame Local Government Award		➤ Government Service Award - Digital Innovation Award
	➤ IDC Smart Asia/ Pacific Awards-Public Safety Award		➤ Government Service Award - Social Care Service Award
2021	➤ IDC Smart Asia/ Pacific Awards-Transportation Award	2021	➤ Smart City Innovative Application Award-Smart Agriculture
	➤ APEC Energy Smart Communities Initiative Best Practices Awards Program- Low Carbon Model Towns-Gold		➤ Smart City Innovative Application Award-Smart Healthcare
	➤ APEC Energy Smart Communities Initiative Best Practices Awards Program- Smart Transport-Silver		➤ Cloud Computing & IOT Award-Outstanding Application Award
			➤ Smart City Excellence Contribution Award-Smart Governance
			➤ Smart City Innovative Application Award-Smart Transportation



**MeN Go**

**Kaohsiung City  
Commuter Monthly Pass**

**NTD399**  
USD 12.5

**Kaohsiung City Sightseeing  
Hourly Pass 24/48/72hr**

**NTD.199/299/399**  
USD 6/9/12.5



# Smart Transportation Real-Time Integration Improving Kaohsiung's Traffic

- ✓ Develop **ITS**(Intelligent Transport Systems) and Service Platforms
- ✓ **IOT** Real-time Data Collection
- ✓ **GUI** Intelligent Dashboard for Data Monitoring and Management
- ✓ **AI** for Road Network Signal Control and Event Response Decision

**P** 機車  
更新時間

(PA-1)民生路

(PA-6)(備用)

(PC-12)監理

(PA-2)河東路

(PA-A)高流



# Large-scale event Real-time evacuation

## Mass Crowd Event Transportation Time

In 2021 **2.5** hour  
**45K** audience

➔ In 2023 **1** hour  
**90K** audience

Time shortened  
**60%**



# Kaohsiung Agrinfo

## Mastering the Trends

AI Fruit  
Ripeness  
detector  
Papaya



Smart Prevention

64 crops, 551 Early Warning Criteria & Reclamation Recommendations



Smart Production and Marketing

Analysis of over 300 Vegetable and Fruit Production and Sales Cases

Received multiple  
International Awards



WCIT2022  
MALAYSIA  
COMMITTED & TRANSFORMING  
THE WORLD

Gartner Eye  
on Innovation  
Awards

For government 2022

Time and  
Labor Saving



109 sites with water, land, and air

Inspection Time Saving over 50%

Drone Spraying Saves 66% of Labor

applications across 968 hectares



Up-to-date agri-news,  
keeping you informed



# Healthcare 4.0

Ubiquitous Healthy City

People

Family

Community

Health Provider

Government



## Healthcare Equipment IoT

Remote Consultation, Hsiung Healthcare Cloud on LINE@, AI mental wellness room, Senior Fitness Club, health management, and the establishment of a comprehensive health data database



## Collaborative Health Data

Connecting Medical Institutions up to **250** for data sharing and collaboration

**154** smart health care stations, served **290k** citizens/Month



## Citizen-Centric Care

Applied in OVER **50** Healthcare scenarios, including suicide prevention, mental health support, cancer screening etc.

Up to **22** health management modules, citizen satisfaction reaches **90%**

# Digital Citizen Services

## Government Services

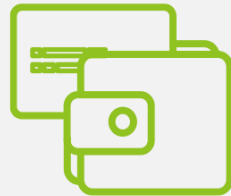
### Online applications

(also including reservations, and petitions)



### Multiple payment options

(parking fees, administrative charges, fines)



### Intelligent citizen service

(powered by generative AI, to provide instant assistance.)



## Lifestyle Services

### Information notifications

(through LINE)



### Kaohsiung Coin

(pregnant women's transportation/pet care points/rewards program)



### Everyday applications

(carbon reduction 、venue access 、library book borrowing...)



**Citizen code**  
(Identification)

# Fortified Water Management Network Enhanced Disaster Resilience

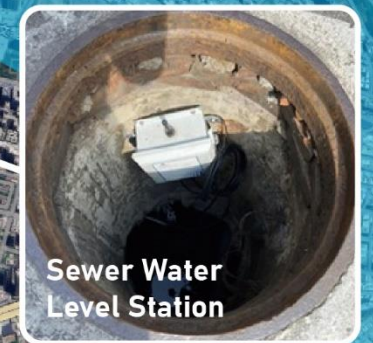
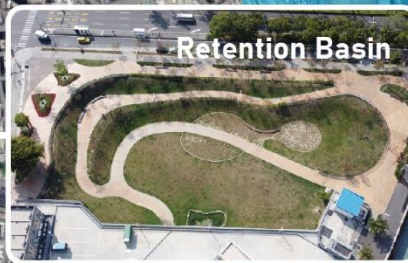
3D Real-time Water Resource Management

Sewer System

Rivers and Drainage, surface

Weather Information

✓ AI Analysis of Overall River system data  
and Disaster Prevention Notification



# First City-level Sovereign AI

Kaohsiung  
Sovereign  
AI

Digital Twin

IOT

Corner Case

AI Strategies



# Lighthouse Project: Cross-Domain Application x Shared AI

## Smart City Silo AI / Vertical AI

Single App

Traffic Flow

Fallen Tree

Flood

Speeding

Road Asset

Work Safety

Landslide

Public Safety

Camera Streams

400+

60+

130+

20K+

## Smart City Driven by Sovereign AI

Compound App

SaaS A

SaaS B

SaaS C

SaaS

PaaS & Sovereign AI VLM

IaaS

Camera Streams All for All

With the All for All architecture in this project, a shared image source and platform allows AI to dynamically adapt across multiple domains, significantly improving development efficiency and scalability.

# Kaohsiung Smart City VLM



Visual Language Model  
NVIDIA Metropolis

City-level 3D Governance Platform  
NVIDIA Omniverse



# Smart City Summit & Expo

## 2026/3/19-21



# THANK YOU

