

KAOHSIUNG

Smart City Development



KPMO Stanley Wang
Kaohsiung, Taiwan

KAO HSUNG

高雄



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

Population

2.72 million

Area

2,952 km²



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



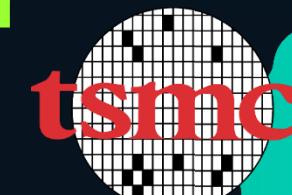
Kaohsiung Science Park

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

ICT、
5G+AIoT
Industries

Department of Transportation
Department of Health Public Works Department
Marine Bureau Agriculture Department
Fire Bureau

ICT、
5G+AIoT
Industries

Smart City Project Management Office
(KPMO)

City As Living Lab



Over 50 Applications 43 Awards



Awards & Recognitions

Year	International Awards	Year	Domestic Awards
2024	<ul style="list-style-type: none"> ➤ ASOCIO Public/Private Partnership Award ➤ ASOCIO Emerging Digital Solutions & Ecosystem Award ➤ WITSA ICT Excellence Award-Startup Ecosystem Award ➤ IDC 2024 Taiwan Winner : Special Award for Smart Cities-Best in Citizen Wellbeing ➤ IDC 2024 the Asia/Pacific Regional winner : Special Award for Smart Cities-Best in Citizen Wellbeing 	2024	<ul style="list-style-type: none"> ➤ Smart City Innovative Application Award-Smart Transportation ➤ Smart City Innovative Application Award-Smart Governance ➤ Cloud Computing & IOT Award-Outstanding Application Award ➤ ITS Taiwan Application Awards ➤ Government Service Award - Digital Innovation Award
2023	<ul style="list-style-type: none"> ➤ Seoul Smart City Prize-Special Mention in Partnership with GGGL ➤ ASOCIO ICT Award-Health Tech Award ➤ WCIT WITSA ICT Excellence Award-Outstanding Contribution Award ➤ AFACT eASIA Award Sustainability & Circular Economy Gold Award ➤ GO SMART Awards 	2023	<ul style="list-style-type: none"> ➤ City of Excellence Award-environmental group-Preferred ➤ City of Excellence Award-social progress group-Preferred ➤ Smart City Excellence Contribution Award-Smart Transportation ➤ Smart City Innovative Application Award-Smart Security ➤ Smart City Innovative Application Award-Smart Transportation ➤ Cloud Computing & IOT Award-Outstanding Application Award ➤ ITS Taiwan Application Awards ➤ Intelligent Transportation Systems Evaluation-Excellence Award ➤ Government Service Award - Digital Innovation Award ➤ Government Service Award - Social Care Service Award
2022	<ul style="list-style-type: none"> ➤ Gartner Asia-Pacific-Government Digital Innovation Service Awards ➤ WITSA ICT Excellence Award-Outstanding Sustainability Development Award ➤ WITSA ICT Excellence Award-Outstanding Digital Opportunity Inclusion Award ➤ ITS Hall of Fame Local Government Award ➤ IDC Smart Asia/ Pacific Awards-Public Safety Award ➤ IDC Smart Asia/ Pacific Awards-Transportation Award ➤ APEC Energy Smart Communities Initiative Best Practices Awards Program- Low Carbon Model Towns-Gold ➤ APEC Energy Smart Communities Initiative Best Practices Awards Program- Smart Transport-Silver 	2022	<ul style="list-style-type: none"> ➤ Smart City Innovative Application Award-Smart Agriculture ➤ Smart City Innovative Application Award-Smart Healthcare ➤ Cloud Computing & IOT Award-Outstanding Application Award ➤ Smart City Excellence Contribution Award-Smart Service ➤ ITS Taiwan Application Awards ➤ Government Service Award - Digital Innovation Award
2021	GO SMART Awards	2021	<ul style="list-style-type: none"> ➤ Smart City Excellence Contribution Award-Smart Governance ➤ Smart City Innovative Application Award-Smart Transportation



MeN Go

Kaohsiung City Commuter Monthly Pass **NTD 399**
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



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

Received multiple
International Awards



Gartner Eye
on Innovation
Awards
For government 2022

AI Fruit
Ripeness
detector
Papaya



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

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



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...)



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

Digital Twin

Kaohsiung
Sovereign
AI

IOT

AI Strategies

Corner Case



Lighthouse Project: Cross-Domain Application x Shared AI

Smart City Silo AI / Vertical AI

Single App



Camera Streams

400+

60+

130+

20K+

Smart City Driven by Sovereign AI

Compound App



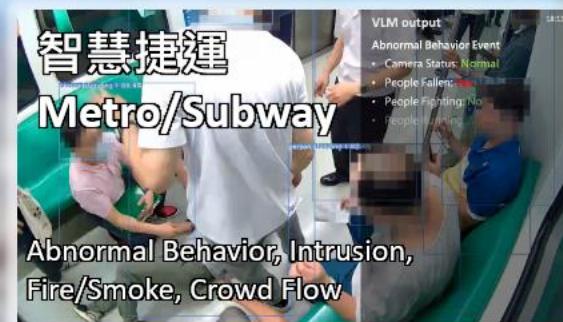
PaaS & Sovereign AI VLM

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

