SMART TAINAN CITY
A smart city comes from love

About

Tainan, the first city built in Taiwan, has diverse features and styles of life. Taiwan, however, is in the area with the highest natural disaster risk.

For hundreds of years our city has grown amidst various challenges. The hard-earned well-being has to be safeguarded at all times. In such a harsh environment, we have learned to work together, to face all the problems.

Knowing the problems is the very beginning.

https://smartcity.tainan.tw/

For the planning for all,
people are the starting point,
technology the tool,
happiness the direction,
and sustainability the goal.

**We have always believed that a city grows for its people.
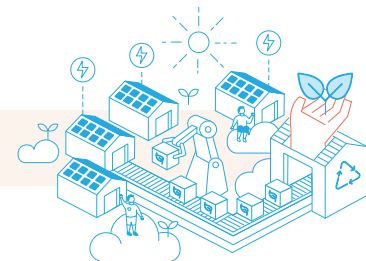And all the wisdom originates from love.**

Sustainability

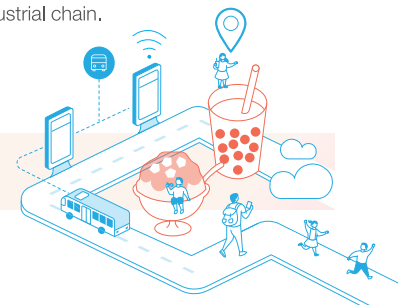### Shalun Smart Green Energy Science City

Tainan City is working together with the central government to promote the Shalun Smart Green Energy Science City with a built-up area of 62.12 hectares and is investing US$770 million to promote creative energy, energy storage, energy conservation, and systems to link the green energy industrial value chain for promoting the research and development of advanced energy technologies; while incorporating low-carbon intelligent transportation systems and driverless vehicle demonstration fields.

Sunshine Electric City

The average yearly sunshine duration of Tainan City is up to 2,000 hours. It has the highest power generation (358.5MW) area in the national photovoltaic system and is also the first municipality directly under the central government that has low-carbon as its governing norm. The public is encouraged to participate through the establishment of the "Photovoltaic City Delegation Service Team", by easy subsidy and bonus policy. Until now, more than 200 advocacy illustration meetings have been held, and approved registrations of photovoltaic devices have hit 4,217; at the same time, the number of green energy enterprises is 250, and the production value of these enterprises is the largest in the world, making Tainan the most complete city in the green energy industrial chain.
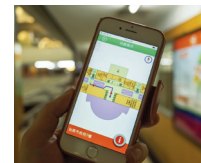
Mobility

Intelligent Tourism

Tainan City is known for the ancient city of history and culture in Taiwan, including 210 historical sites and 83 kinds of folk traditional arts. In recent years, public communities have been encouraged to carry out the old house regeneration plan, to actively construct cultural parks, and to create cultural and creative sightseeing spaces. In addition, Tainan City provides multiple intelligent services and has built 5 APPs through cooperation with companies, providing nearly 8,000 tourist attractions on different main axes, traffic transfers, food, GPS navigation, and online shopping services. The city has also broken through the traditional city marketing and tourist mode of travel in combination with the AR real environment travel experience, so as to attract people and tourists. Each year an average of 2 million visitors come to the city.

4G Smart Bus

Tainan City Government has actively updated the mass transportation system since 2014, by fully replacing 904 groups of bus stop boards, building 400 4G buses, providing 4G Wifi, USB charging, and dynamic bus stop information service, and cooperating with "Tainan City Bus" App. It has built close to 1,000 Beacon devices at intelligent bus stations, providing value-added services such as bus information. Up until now, the bus transport capacity has increased to 49%, and after the county and city merged at the end of 2010, trip numbers have increased almost 20.5 million. The system provides a friendly, convenient, and intelligent bus trip service and reduces traffic congestion.

Beacon on APP

Tainan City was the first in Taiwan to import the intelligent city Beacon solution and built a perfect Beacon service network in combination with the "4G Intelligent City Flagship Plan". It has built about 20,000 sets of Beacon, which are applied to tourism, transportation, and municipal services, and has fully opened the system API to encourage the public to participate in value-added activities. Currently, the integration of Beacon into the tourism APP has accumulated up to cooperating 1,000 shops with service point use over 4 million. It is estimated that the total production value of business opportunities for the merchants exceeded US$1.90 million during 2016-2017.

Accessibility

Digital Opportunity Learning

Tainan City has set up 12 digital opportunity centers in order to diminish the digital divide, and has handled up to 196 relevant activities or courses for raising the information literacy of the public, with the total number of beneficiaries reaching 30,359. For people in remote areas, at least two classes of free action Internet training courses are set up in each administrative region to reduce the digital divide and improve the information application ability of the public. Aiming at rural schools, it has also actively created a digital learning environment, facilitated in provisioning campus wireless networks, introduced cooperation with government, education, and industries, and subsidized tablet computer action carriers. Currently, it has facilitated 18 rural schools in application for project plans. In total, 648 tablet computers are for usage in digital learning.
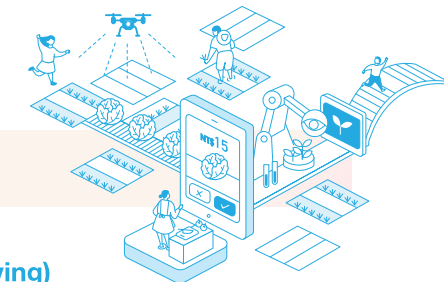

Action Teaching

In 2016 and 2017, Tainan City Government worked together with Qualcomm, Far EasTone Telecom, Industrial Technology Research Institute, and ASUSTeK Computer to build the "Cloud Play" platform website and APP and to donate 1,200 tablet computers to 21 schools. Through digital audio and video education, GPS positioning, community messages, and other online services, students, teachers, and parents can carry out digital learning and communication through the platform and expand the teaching diversity.

Renovation

AI Training Base (UAVs, Robots, and Self-driving)

Tainan City is working together with Southern Taiwan Science Park Administration Office to build an AI Robotics Hub and setting up the makers' base of various open type intelligent robot innovation platforms at the scientific research level for AI technology promotion and cooperation with the central government. For AI, the test field domain of the development of each component of the interactive robot, including the combination of UAV aerial photography, artificial intelligence image identification, analysis, and calculation, is used to master the landscape and road condition of all of Tainan and then employed for traffic monitoring, simulation, and forecast. The relevant application products and integrated technical services focus on projects involving robots and self-driving technology R&D.

New Farmer Program

Tainan City has the largest cultivated land in the country, with an agricultural production value reaching about US$1.9 billion yearly, accounting for 11% of Taiwan's total agriculture production value. In order to build out from the traditional agricultural production mode, Tainan City Government carries out measures to revitalize farmers as well as rural and agricultural development and encourages young people to return to their native farmland where they grew up. This includes the establishment of a "farmer school" for teaching the planting technology, Internet marketing courses, e-commerce teaching, and other relevant knowledge and technologies. Its scope covers 7 districts with a total of 228 new farmers participating. In 2016, it also cooperated with Taiwan Mobile to promote the myfone online shopping platform and has operated the good farmer Facebook community platform in southern Taiwan to increase the brand value of Tainan's special agricultural products. So far, it has set a sales performance of US$330,000 with a total of more than 1,000 new farmers and has successfully activated fallow area totaling 50,824 hectares

---
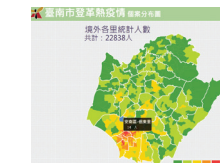
Technology

Disease Prevention

In 2015, Tainan City faced the most severe dengue fever outbreak in recent years, with the number of confirmed cases reaching 22,752 that resulted in 112 deaths. During the outbreak of dengue fever, Tainan City government cooperated with Far EasTone Telecom to analyze the potential area of dengue fever outbreak taking spatial big data as the core. It has donated 100 GPS mobile phones to record the tracking of the workers who were conducting the spraying. In 2016, it initiated the Geographic Information System for Dengue Fever Outbreak as the platform of tracking, oversight and evaluation, and data analysis; also cooperated with National Cheng Kung University to launch the "Mosquito Man" platform and APP; allowing public reporting and information sharing; and properly used the intelligence force of the people to provide the public with the most updated real-time environmental situation as well as a quick screen for viewing doctors and prevention information. In 2017, the city set up its "Science and Technology Preparedness Plan of Intelligent City". Through research and development of an intelligent bug zapper, Internet of Things (IoT) technology is used to collect mosquito data, and cloud data statistics and artificial intelligence are utilized to analyze epidemic prevention strategies.

Disaster Prevention

In 2016, an earthquake of magnitude 7 struck Tainan City, and the city government immediately established an earthquake information zone to publish relevant data and integrated seismic-related information (casualties, resources, donations, search and rescue status, etc.) within 1 hour after the earthquake. At the same time, the population also built an open earthquake disaster map. "Tainan earthquake disaster integrated platform", to interface with the open data published by Tainan City government, including materials and collective centers, list of statistics, medical institution information and so on. Tainan City opened the mass value-added application through the concept of crowd-sourcing, with up to 200,000 people using it over a short period of time, thus effectively converting it into important information for government disaster relief.

Open Intelligence Governance

In order to implement the open government policy of Tainan City and achieve transparent governance and universal supervision to provide multiple notification services for the population, the city government has promoted the "Open Tainan 1999" program since 2015. On the level of "Open Data", it has prepared 33 dispatching projects in 9 large categories and initiated the opening of 1999 Application Programming Interface (API) of the county government to provide 4 API services. This allows the public to actively develop "GeoBingAn 2.0", "Tainan 1999", and other APP platforms to set up public-private collaborative efforts and to encourage the public to use a large number of case data for relevant data analysis as well as related value-added application services.