



# *2015 Southern Taiwan White Paper*

## *Southern Taiwan at a Crossroad* *Kaohsiung - Tainan - Pingtung - Chiayi*

Includes a Foreword by

## FOREWORD

## ACKNOWLEDGEMENTS

AmCham Kaohsiung is proud to publish its sixth annual White Paper in 2015. The outstanding response and support we received while creating it merits acknowledgement. The National Immigration Agency, Kaohsiung City First Special Operation Brigade (thanks again to Ms. Frances Lee in particular for providing immigration data and to the entire staff, who hosted a most comprehensive meeting hosted by Wayne Hsieh (General Commander), deserves our heartfelt thanks. Special thanks go out to the following people who shared their valuable time, wisdom and opinions at many times during the past several months. This edition of the White Paper could not have been written without them: Gregory Harris; John Lu (Horizon Group); Daniel Tsai (Li & LEE); David Lin (Lucite); and Joe Lynch (VEX). Each set aside time for related discussions and provided us with essential information and outstanding cooperation. We wish to express our appreciation and thanks to all of the officials, leaders, educators, entrepreneurs, groups and individuals who contributed. We would also like to express our appreciation and thanks to the American Institute in Taiwan (AIT), both in Taipei and Kaohsiung, for all their tireless efforts and support in facilitating this and all of our projects. We would like to thank our colleagues at AmCham Taipei for their 60+ years of excellence and their outstanding demonstration as role model. AmCham Kaohsiung would also like to thank Ms. Alison Yang for helping so much in arranging meetings, taking care of day-today activities and getting the never-ending flow of Chinese information translated into English. Our sincere thanks go to Ms. Barbara Shen who, as always, provides us with unsurpassed Chinese translation for our White Paper. Thanks to all of you who took the time and made the effort to get involved and share your opinions, expertise and experiences for the sake of a better future in southern Taiwan.

Although the Southern Taiwan White Paper represents the immediate business interests of AmCham Kaohsiung members and the local business community, its ultimate goal is to foster the upgrading of Taiwan's economic conditions to the benefit of both local and multinational businesses. The 2014 White Paper deals with issues that are critically important to creating a solid future growth for southern Taiwan. For the Taiwan public at large, it encourages the growth of a broad spectrum of high-quality goods and services to improve the quality of life for all Taiwan residents.

AmCham Kaohsiung's goal is to enhance understanding, communication, cooperation, and commitment as we all work for a better future. Thank you for your attention.

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## INTRODUCTION

2014 was certainly a very busy year for southern Taiwan. New projects were completed and opened to excellent reviews, such as the Kaohsiung Exhibition Center and the Kaohsiung Main Library. Progress in the Southern Star Yacht Manufacturing Center has been a benefit to the industry. Still more projects are underway and will play an important role in the development of Taiwan's second largest city. Cooperation and commitments from local and central government should be applauded, as together they are continuing to make a difference in southern Taiwan. Unfortunately, not everything that happened was good. Scandals in the business world rocked Taiwan's reputation as well as the confidence of consumers. In addition, a tragedy of historic proportions occurred when a gas leak caused several kilometers of roadway to explode, killing about 30 people and damaging persons and property. Talent drain continues to be a major problem for Taiwan's future as companies lose more top people to foreign companies, sometimes at the hand of former Taiwanese executives. Additionally, Taiwan's energy portfolio grows increasingly more delicate as the environment, public lack of accurate knowledge, political bickering and the ever-changing availability of power generation has not provided the much needed solutions that can adequately meet the growing demands for energy that are necessary for sustainable economic health and growth. Changes are needed, and some of them will be difficult. However, with cooperation and communication, we can overcome all obstacles.

For southern Taiwan to fully realize its collective goals for the future, it must continue efforts to Connect, Communicate, Coordinate, Cooperate and Compete. Each aspect of developing the future needs to maintain this "5-C" policy. Each aspect of this white paper is interrelated, just like the communities in which we live. We must approach our future with a clear vision of the big picture, knowing that every single detail is fully dependent on the successful implementation of several programs, projects, initiatives, and the participation of a lot of people.

Throughout all the challenges and improvements, obstacles and developments happening in southern Taiwan, significant opportunities are available for entrepreneurs, national and multinational corporate leaders, and investors that should not be overlooked nor underestimated.

Brian Aiello



Governor and Chair of the Energy Committee – AmCham Kaohsiung.

Have comments or questions? E-mail me at, [brian.aiello@amchamkaohsiung.org](mailto:brian.aiello@amchamkaohsiung.org).

This edition of the Southern Taiwan White Paper is published by the American Chamber of Commerce Kaohsiung (AmCham – K). It includes an overall assessment of Southern Taiwan's business climate, a review of the current priority issues identified by the Chamber, as well as recommendations for each topic. The primary purposes of AmCham-Kaohsiung's annual white paper are promoting understanding, providing information, and supporting advocacy. This document outlines suggestions to the Taiwan government and public on issues that have a significant impact on the business environment in southern Taiwan. It is also used to inform government officials, elected representatives, and other interested parties in the United States about Taiwan's business climate.

This 2014 edition of the AmCham K White Paper has been written by Brian Aiello

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## EXECUTIVE SUMMARY

2015 is a pivotal year for Southern Taiwan. Ideas have been presented; a vision for the future is in place however, we now need to execute the plan. The American Chamber has laid out a framework on some of the key issues that need to be addressed. Much progress has been made in the last few years in building the infrastructure to spur economic development. Yet, the facts speak for themselves. There are very few new foreign investments in the Southern part of Taiwan. Students come, study and leave. Even our own chamber struggles to find foreign businessmen to join.

What is it that we, as a community, can do to make Southern Taiwan more attractive for investments, more interesting as a place to live? Government bureaus must work with civic organizations and business leaders to coordinate a plan of action to make Southern Taiwan more international. Emphasis must be placed on action and not only just visions and hope. Business leaders must take more of a leadership role in investing for the long term and not just holding onto old gains and market share. Governments must work together for a comprehensive solution to regional problems and not hold personal self-interests at heart. We need diversity of thought, investments in action.

As always, Brian Aiello has worked closely with Chamber members to develop and write our annual white paper. In it we have laid out areas that we believe to be important commercial steps to make Southern Taiwan more competitive in the market place. In this paper you will find the Chambers positions and recommendations in the following areas:

GAS PIPELINE SAFETY - What is needed is a reliable and accurate method for sensing gas leaks, a prompt and comprehensive method for multiple notifications that would be immediately sent out to those entities whose responsibility for public safety as well as the affected businesses, and a fail-safe system that would shut down the affected pipelines in the event of any significant leaks that can cause explosion risks.

ENERGY – Look towards innovative ways to utilize cleaner burning fuels while enhancing conservation methods.

TRAFFIC – enhance automated monitoring and control methods to optimize travel while minimizing related air pollution. Streamline traffic patterns by minimizing

access to main roads and eliminating U-Turns in places where they badly disrupt the flow of traffic. And standardize wherever possible.

YACHT INDUSTRY AND MARINA DEVELOPMENT – rescinding the luxury tax will help the industry. AmCham K applauds the support from local and central government departments. What is needed now is to allow local manufacturers to create partnerships that will bring in more moderately priced boats into Taiwan which will help create a strong entry-level market. In addition, more land areas need to be freed up for use in developing marinas and surrounding support business including restaurants, shopping, etc. This should go hand in hand with aggressive work to attract both local and international investment for world-class marina environments that will promote not only additional boat sales, but tourism.

AIT can assist in organizing trade visits from US boat builders to come to Taiwan seeking ways to expand their own business while helping to nurture Taiwan's leisure lifestyle industry.

STANDARDIZED CERTIFICATION – for boat owners and pilots to conform to international standards is needed as this will further enhance the boating and tourist industries.

AUTOMOTIVE TAXATION – should be reviewed to more accurately reflect the newer low emissions and higher fuel economy vehicles being produced around the world. A “Pay at the Pump” tax will have a greater impact on incentivizing drivers to be more economical in their driving and vehicle purchases.

4G and BEYOND –the potential benefits of 4G and 5G networks will be life changing in scope and can provide a positive impact in daily living, whether in the home, office, factory, car or phone. Taiwan needs to be at the forefront of this technology and continue its reputation as a world leader.

MICE SECTORS – should continue to be a main focus for creating sustainable growth for Taiwan. Southern Taiwan is especially well-positioned due to its available land, great weather and access to land, sea and air transportation

BUSINESS SCANDALS – not only hurt customers but they can cause irreparable damage to Taiwan's image as a high-quality, high-value producer of a wide variety of goods and services. Steps need to be taken to strengthen regulations and punishments in order to reverse this extremely disruptive trend.

TECHNOLOGY DEVELOPMENT - needs to be expanded to include commercialization frameworks, business education and greater cooperation between government entities, universities and the private sector. Creating Development and Commercialization Centers to southern Taiwan will attract talent, eliminate or minimize brain-drain, and raise the overall quality of life as it brings higher paying, higher skill jobs to the south.

MEDICAL TOURISM and a SILVER ECONOMY as a new growth industry will bring with it numerous benefits such as helping to raise revenue for Taiwan's health care as well as in new construction of retirement communities targeted for middle and upper income senior citizens who will most appreciate Taiwan's great culture and climate.

EDUCATION – southern Taiwan's ability to attract foreign investment is tied in part to its development of labor and management with more creative and entrepreneurial skills, and education's focus on nurturing the critical thinking, creativity and initiative of its students. Economic development and security goes hand in hand with education reform. In addition, a greater effort is needed to enhance the island's ability to attract foreign students which will help to broaden perspectives and cultural exchange. At the same time, Taiwan should promote the study abroad of its citizen students in order to bring the world to Taiwan.

TOBACCO AND TAXES – will always be a controversial topic that is also quite complex. In order to minimize the illegal imports, enhance public health and provide less stress on the island's health care industry, a careful balancing act is needed with sensible review and actions taken.

PETROCHEMICAL INDUSTRY – Reinforce and think through the security, logistics and management of the underground pipeline infrastructure. Safety should be a great concern to both the public and the production facilities. Secure, safe and timely supply of required materials is paramount to keeping jobs and output in Southern Taiwan. The central government, Ministry of Economic Affairs, and city governments must work together to build a platform and system that provides manufacturers with needed supplies in a safe, environmentally conscience way that ensures public trust while ensuring economic output. Government agencies must work with industrial leaders, public works offices, fire departments, labor bureaus, the EPA and other stake holders to create a comprehensive and safe system that a modern city needs to have.

Announce an explicitly detailed plan and discussion forum of zoning considerations for Dashe Industrial Park. A comprehensive impact study of all changes should be made looking at any decision in a holistic way that creates the best outcome both environmentally and economically for Kaohsiung. Should zoning changes be made the government entities and bureaus should come up with a comprehensive plan on how industries can adapt in ways that creates the least disruption and economic hardship to factories and workers.

Review and modify relevant laws and accelerate the decision processes on creating and setting up special petrochemical economic zones. While on the surface, the positions of the local government and the petrochemical industry seem to be at opposite ends of the spectrum, solutions are in fact possible. Through open dialog, unbiased clear and accurate facts and public disclosure, sound engineering and technological innovations, an agreeable solution can be found that will satisfy all concerned parties.

Again we thank all of you for your continued support of the Chamber. Without our members and cooperate support the White Paper would not be possible. We look forward to the future prosperity and growth of Southern Taiwan and hope that we as a chamber and our individual members can be a part of the action plan to make it happen.

Sincerely,

John Stephenson – President of the American Chamber of Commerce Kaohsiung

## TOPICS

**DISASTER BRINGS LESSONS FOR THE FUTURE** – the Kaohsiung gas explosion does not call for finger-pointing or political positioning; there are a number of important lessons to be learned from this disaster that will create a safer community in which to live and work, as well as boosting confidence in potential foreign investors. The night of July 31<sup>st</sup>, 2014 marked a historic disaster for Kaohsiung. Leaking gas pipelines fed into the sewage system where it collected and eventually destroyed 3.5 kilometers of roads, damaging nearby homes and businesses, killing 30 people and injuring many more, and disrupting the lives of thousands. Although the roads are for the most part rebuilt, and many residences and businesses return to normal, the lives of those touched by the event will take much longer to heal. The natural course of related investigations will result in fines and improvements, no doubt. However, there are certain points that need to be made and recommendations that need serious consideration. One of the first opinions raised immediately after the explosion was that people should have been evacuated. We disagree. The first responders went out in search for the source of the reported smells of gas leaks and were diligently in pursuit right away. Yet without any clear sources identified how could any evacuation be assessed and ordered? If an evacuation order had been put into effect, the result would have been thousands of residents taking to the streets in various states of panic and chaos, with the results being massive traffic jams with those thousands trying to leave the area on those very roads that exploded. As it was, the streets were relatively empty and therefore casualties were kept to a minimum. The bottom line is that the right decision was made.

It was later asserted that one gas company had recorded far more gas leaving its storage facility than was delivered to its customer; pointing to an obvious problem. There have already been steps taken to ensure that this type of tragedy does not repeat itself in the future. But as cities develop, rezone and mature, old systems can become a hazard yet again someday in the future. City planning to prevent pipelines from going through populated areas is good, but over time, these might be overlooked or forgotten.

What is needed is a reliable and accurate method for sensing gas leaks, a prompt and comprehensive method for multiple notifications that would be immediately sent out to those entities whose responsibility for public safety as well as the affected businesses, and a fail-safe system that would shut down the affected pipelines in the event of any significant leaks that can cause explosion risks. While older technologies and components were inaccurate, expensive and unreliable, that is no longer the case. What is recommended is the following: utilize the latest high-tech, low cost, accurate and reliable sensors. These should be placed not only at critical pipeline junctions, but also along the pipelines from the source to the end points; and would be able to self-test and diagnose any malfunction. These sensors can be linked together wirelessly and powered by solar cells with battery storage to ensure

that sensors need not be connected to any power grid to function. The wireless sensors are also important in that they can be remotely monitored from central monitoring stations, the emergency response center, fire and police departments, the local EPA office, the gas suppliers and customers. If a leak is detected, isolating the source of the leak can be done by triangulating the sensors which will quickly narrow down the area of the suspected leak. Automatic notifications sent out to all appropriate departments will ensure that everyone who needs to know will know almost immediately allowing a coordinated effort to take place. An emergency response plan can be created specifically to deal with gas leak events; training and drills can be scheduled and emergency preparedness can be streamlined. If the gas leak is substantial, the source from the supplier would be automatically shut down to eliminate the spread of gas in seconds instead of minutes or hours. The benefits of such a system are many. Economically, being able to identify, isolate and contain gas leaks as quickly as possible minimizes the amount of gas lost, and therefore saves the suppliers from revenue loss due to product leakage. The environmental impact is minimized as there would be far less toxic or explosive gases leaked into sewage, ground and the air along pipelines. Public safety and confidence would certainly benefit as well. There are two additional considerations; the first being that the cost of such a system is far less than the cost of a disaster; the second is that Taiwan is trending towards the increased usage of gas fuels, not only for medium and large businesses, but in residential areas as well as new construction tends to prefer piped in gas for cooking as opposed to bottled gas. These sensors can be used for residential applications as well, installing them in both bottled and piped-in gas homes.

Taiwan is a world leader in both high-tech electronics and wireless technologies. Let's make it a world leader in gas safety systems as well.

**TAIWAN'S UNSUNG HEROES; PART 2** – Fire Fighters and first responders put their lives on the line every time they go out on a call, sometimes paying the ultimate price for their bravery and heroism. Taiwan's rescue dog network and their handlers are always on call in the case of disasters and dedicate their lives to be there when they are most needed. The American Chamber of Commerce salutes these unsung heroes and deeply appreciates all of the hard work they do each and every day. They save lives and they deserve our thanks and recognition.

**TAIWAN'S ENERGY SECURITY AT A CROSSROAD** – with the ongoing controversy over nuclear power and growing concerns on environmental impact, it is vital for citizens and officials alike to clearly understand what options and liabilities are available in the island's future energy security. Some cold, hard choices need to be made.

The two major concerns are having secure power for today and tomorrow, and having it at pricing that does not restrict growth. Taiwan enjoys a rather unique position as having relatively affordable electric rates thanks to Taipower's efforts

and its oversight by the central government. Make no mistake; this is not an easy task. Fluctuations in fuel costs, ever increasing focus on lowering emissions and negative environmental impact, cooperative efforts to lower energy consumption while accurately predicting and building for growth in energy demands that is directly related to economic growth and competitiveness, all while attempting to please all consumers of energy is thankless at best and a nightmare at worst.

Mothballing the 4<sup>th</sup> nuclear power plant is perhaps the most illustrative example in recent years. Spurred by the Fukushima disaster, public concern over Taiwan's nuclear industry has spiked. A lack of clear independent information has not helped the situation either. Whatever your position on nuclear power is, there are certain things that are fact. Taiwan has a very good international reputation and track record when it comes to nuclear energy. Nuclear waste is in fact the most important issue that needs to be addressed and new technologies are being developed that will allow for spent nuclear fuel to be used in a non-critical mass configuration to produce energy in a far less risky manner while also being more economical. It has been estimated that the current levels of spent nuclear fuel now stored in Taiwan could potentially provide all of the electricity needed for the island for up to 100 years. Putting such technology into place will take years though.

So, what can be done in the short-term to ensure that Taiwan has the power needed for consistent growth while at the same time lowering pollution?

There are two simple answers; increasing the amount of natural gas consumption and finding economically viable methods for minimizing and capturing carbon emissions. Natural gas is perhaps the best solution at this time as the technology is mature and extremely efficient, especially compared with coal. Estimates are that if the Taichung coal power plant was entirely converted to natural gas, emissions would decrease by about 75%. There is also a growing trend on Taiwan for medium and large enterprises to convert from diesel, heavy oil or bunker oil to natural gas. What is difficult is not whether to make these changes, but how to deal with the potential increases in cost to the consumers for doing so. What must be done is to explore innovative combinations of technologies and resources to maximize efficiencies while minimizing emissions and cost.

We must also look to our excellent LED industry to push for more ways that LEDs can be integrated into our everyday lives. LED traffic lights, and now even street lights are becoming the standard in Taiwan and AmCham applauds these advancements. Now we must push industries, commercial enterprises and residents to adopt this super energy efficient lighting resource. As an example, this author recently replaced some 4-20 watt fluorescent light fixtures with 3-6 watt LED fixtures. The new light give off more light that is also less harsh, and uses less than 25% of the electricity than the fixtures they replaced. Imagine what a typical office building could save. Perhaps some incentives might help business owners to make the upgrade, whether through government incentives, Taipower rebates, or special financing.

What is an inconvenient truth is that the cost of energy for Taiwan will increase, as will the need for cleaner energy solutions. This will be a matter of delicately balancing energy growth and innovations with new technologies in energy conservation and a pricing structure that will not cripple the economy nor compromise Taiwan's competitiveness.

### **IMPROVING TRANSPORTATION SAFETY WHILE LOWERING EMISSIONS –**

Taiwan's traffic control is an exercise in complexity. However, by utilizing new technologies available today, we can realize a 15% decrease in travel times for private traffic, a 50% reduction in queuing time, and a 10% decrease in emissions and fuel consumption in urban areas. Mass transit upgrades need to be expanded to make services convenient, efficient and affordable. The light rail project will demonstrate how new technologies can bring cleaner environment and convenience together.

Advances in traffic control technologies are producing significant positive results around the world. Using fully computerized traffic monitoring and control systems allows for numerous benefits that can really make a difference in southern Taiwan. By using comprehensive traffic cameras that can sense traffic volume, flow and anomalies; integrating them with full central monitoring capabilities as well as predictive learning software programs that will control the timing of traffic lights and adapt them over time to provide the most efficient, and therefore safest and least polluting configuration possible. Current systems in use in the United States control extremely complex traffic control systems with excellent results; a 15% reduction in commute times and air pollution, a 50% reduction in queuing times, reductions in driver frustration and rage incidences, a healthier and more productive society. Traffic cameras are quite useful in doing much more than monitoring the flow of vehicles; they can be instrumental in resolving issues of liability in traffic accidents; they can identify traffic violations; and they can be used to produce informative videos for use on TV news on "Doing it Wrong", a recommended segment that can show actual examples of poor and dangerous driving situations that should include an explanation why it was wrong or dangerous and what the correct method should be. In a more extreme move, the most egregious violators can be given traffic tickets similar to what is now being done with traffic cameras for speeding or going through red lights. Since the general public would certainly respond with outrage over the sudden establishment of such enforcement and fines, it is recommended that a series of public service announcements be made along with a six-month "grace period" whereby violators are mailed "warning" versions what the future tickets would be as well as what fine will be imposed for each future violation after the grace period expires.

Additional recommendations for alleviating traffic congestion include the elimination of full access to main roads by alleyways and areas where currently intersections exist within 50 meters or less of larger intersections. In these cases, access to the main road should be limited to right turn only. By cutting down on

these, we can also eliminate all those locations where traffic lights are one right after another , and too often cars are disrupting traffic to make turns.

One more thing that occurs far too often is the U-Turn. Far too frequently, a driver will execute a rather dangerous and disruptive U-Turn instead of taking a few extra minutes to drive around the block or plan their routes so U-Turns are not needed. In the meantime, serious consideration should be given to banning U-Turns within urban areas and on main roads.

The concept of either “pedestrian only”, “scooters only”, or “cars only” is nothing new around the world, and should be given careful consideration in rapidly developing southern Taiwan municipalities. Pilot programs should be developed and established as test beds for permanent changes in traffic regulations. Examination of historical data related to traffic accidents should be able to highlight those best candidates for such pilot programs. As an example, is it really necessary for both scooters and cars and trucks to have full access to both Jhong San Road and Jhong Hwa Road in Kaohsiung? There is also in place a time restriction on scooters that require them to make right turns (onto Minzu Road) only when travelling east on Jiuru Road. This should be permanent.

Another area where changes can make life easier is in standardizing the turn lanes and traffic light arrows. If they are all brought into the same type of set-up, it will be easier to follow and anticipate as a driver, and easier enforcing the rules of the road.

In previous editions of our White Paper, I have written about the challenges that exist in improving traffic flow and safety. Because traffic congestion, the increase in personal cars and urban population, the existence of a large percentage of older drivers on scooters and bicycles, a stubborn loyalty to the ideal of individualism when it comes to driving habits, and the inadequate education of the driving public, commuting around town in southern Taiwan is like being in a video game. There is one major difference; in a video game, damage, injuries and even death are simply resolved by restarting the game; in real life, the results are far more severe and permanent. Mass transit is a good thing and needs to be expanded to offer a larger area of coverage, optimized convenience and cost effectiveness.

#### **CHANGES IN AUTOMOTIVE TECHNOLOGIES AND EFFICIENCIES DEMAND CHANGES IN TAX STRUCTURE**

– advances in automotive technologies are enabling car makers to offer unprecedented fuel efficiencies and lower emissions while at the same time providing vast improvements in safety and performance. The outdated method of taxing new cars purchases by engine displacement is counterproductive and bad for the economy as it serves to make it less attractive for people to trade in their older, less fuel-efficient and more polluting vehicles. Changes in tax structure to a “Pay at the Pump” method rewards fuel efficiency and enables citizens to replace their aging fuel guzzling and air polluting vehicles by making new vehicles more affordable. We should be incentivizing the population to buy environment-friendly vehicles instead of pricing them out of reach. By taxing the fuel, mass transportation becomes more attractive to those

currently on the fence about its use; people are directly encouraged to drive “gently” and older fuel guzzling and higher polluting vehicles will be more rapidly replaced. If done properly, the economy will be stimulated, air quality improved and tax revenue just might increase. A slightly less accurate and effective method would be to tax a vehicle based on its manufacturer’s posted EPA fuel economy rating. While it is less accurate or direct as the “Pay at the Pump” method, it can still provide a more general scale for taxation. It does not however take into account driver habits as those who drive with a “Heavy Foot” would use considerably more fuel than a light-footed driver of the exact same vehicle.

### **WHY 5G IS CRITICAL TO TAIWAN’S FUTURE**

How 5G will push a supercharged network to your phone, home, and car while providing economic growth for Taiwan

Fifth-generation networks will be dramatically faster than the 3G and 4G networks in use today. CNET

This has much to do with faster, more powerful wireless networks. Today, the networks that drive our smartphones and Internet-connected devices are mostly based on 4G technology. However, higher-performance fifth-generation technology (5G) is coming, and it promises to take us places we've never been before.

Billions of sensors will be built into appliances, security systems, health monitors, door locks, cars and wearables -- from smartwatches to dog collars. Analyst firm Gartner predicts the number of networked devices will skyrocket from about 5 billion in 2015 to 25 billion by 2020.

All those sensors producing mountains of data should, in turn, cause carriers to spend billions upgrading their networks for 5G so they can cash in on your increased appetite for data.

5G networks will be about 66 times faster than 4G. That speed opens up wonderfully exciting new capabilities. Self-driving cars can make time-critical decisions. Video chats will make us feel like we're all in the same room. And cities can monitor traffic congestion, pollution levels and parking demand -- and then feed that information to your smart car in real time.

Expect plenty of benefits from the 5G network.

- New realities: 5G will push augmented reality and virtual reality into the mainstream. Augmented reality overlays information like walking directions, product prices or acquaintances' names over our view of the real world by, for example, projecting data onto a car windshield. Virtual reality creates an entirely artificial view. Both need to pull in new data almost instantly.
- Instant gratification: Download speeds should increase from today's 4G peak of 150 megabits per second to at least 10 gigabits per second. That's fast enough to download in seconds instead of minutes.
- Lightning-fast response: In addition to cramming more bits into every second, 5G will shorten the lag time before the first bits show up. Waiting a few seconds for a streaming video to start over 4G is no big deal, but that's unacceptably slow for

things like self-driving cars, where every millisecond counts. 4G ideally needs 15 to 25 milliseconds for one car to tell another behind it that it's begun emergency braking. That delay will drop to 1 millisecond with 5G.

The wireless industry is fixated on delivering the first 5G networks by 2020. AT&T and Nokia Networks say the schedule is reasonable, while consulting firm Deloitte & Touche thinks 2022 is more realistic. And Tod Sizer, head of wireless research at Alcatel-Lucent's Bell Laboratories, doesn't expect widespread availability until 2025. Whatever the date, 5G is coming. To deliver 5G, carriers will need to boost network capacity between phones and the big antennas, called base stations, they install every few miles.

They can start by tapping into unoccupied spectrum; radio-wave territory relatively uncluttered with signals today. Radio waves vibrate with a frequency measured in megahertz or even faster gigahertz. Today's phones communicate at less than 3GHz; 5G will require higher frequency bands.

But radio waves at higher frequencies are harder to transmit over longer distances or if buildings and walls are in the way. To compensate, carriers will rely on advanced antenna technologies. These include massive MIMO (multiple input multiple output) antennas, which send many radio signals in parallel, and beamforming, which focuses radio energy in a specific direction.

Carriers will also pack base stations more closely together to improve the odds your phone will be near one. They will also supplement today's long-range "macrocells," which can reach up to about 20 miles, with lots of short-range "small cells," which can cover up to a few hundred feet.

Installing one macrocell and getting it running costs hundreds of thousands of dollars, while mounting small cells every block on power poles costs tens of thousands of dollars apiece, Fujitsu's Adeyemi says.

Smarten up

Google's Nest thermostats and Net-connected smoke detectors are already making homes smarter. Automakers are developing connected cars with seat-back video and self-driving safety features. Fitness bands, sleep monitors and smartwatches will soon combine data gathered about your vital signs, including breathing rate, heart rate and temperature. That holistic view could keep us healthier longer and even warn us of an imminent heart attack or stroke. Cities, already getting smarter, could become downright geniuses. Barcelona, Spain, uses more than a million sensors to monitor traffic, pollution, noise, parking, water pressure, weather and electricity.

In Nice, France, more than 200 sensors have been installed on streetlights, in the roadway and on garbage bins. They collect data on traffic flow, public lighting, parking, waste and pollution in the city's center.

While carriers' base stations can handle hundreds of simultaneous users now, that's not enough to accommodate the billions of new devices that will hook into the Internet of Things. Equipment makers must increase base station connectivity capacity by a factor of 1,000, says Bell Labs' Sizer.

Taiwan has been involved in communications and computer technology for decades now. 5G gives yet another opportunity for Taiwan to show the world that it is still an industry heavyweight. Why should we let South Korea go unchallenged in this field? We strongly encourage both government and the private sector to strongly support new technologies and maintain Taiwan's excellent standing in the world of communications electronics.

#### **UPDATE - TAIWAN'S YACHT INDUSTRY and WHY IT IS IMPORTANT TO**

**EVERYONE** – the luxury tax imposed on Taiwan citizens who would like to purchase yachts has been seen to be counterproductive and was recently repealed. The American Chamber of Commerce Kaohsiung would like to recognize and applaud this tax repeal. The enactment of including yachts in the luxury tax laws was likely due to the misconception that like luxury housing, buyers might be speculating on making future profits. It is more accurate to describe yacht buyers as long-term investors in the Taiwan economy; an investment that has a positive impact on virtually every segment of Taiwan's financial vitality. As a rule of thumb, the annual upkeep of a yacht is equal to about 10% of its value; thus a USD\$10 million yacht costs \$1 million each year to maintain. In addition, fuel, mooring, stocking of food and beverages, equipment, as well as purchases by owners and crew members at local restaurants and shops represents a significant amount of spending on a per person basis. The building of marinas around Taiwan will result in increase in high-end tourism and related spending as well. As we look further into the future, yacht maintenance facilities can be created to increase jobs and revenue. In addition, creating events that tie into yachting will further enhance revenue and the island's tourist industry. Taiwan is a great place for developing a luxury lifestyle industry as it is already the home of high-tech, beautiful natural locations as well as a growing number of high-end shops and restaurants. One need only look at cities around the world known for their yachts and boating, such as Miami Florida, to understand the potential revenue and growth that can be achieved through a well-established yacht industry.

AmCham Kaohsiung would like to recognize and applaud the greater level of encouragement and cooperation from the Kaohsiung and central governments in its efforts to nurture this vital industry. Taiwan Yachts are world-class and made to the absolute highest quality standards in the world. This has been proven over time through sales and the outstanding reputation the Taiwan industry has world-wide. Support from the local and central government is essential, and greatly appreciated, but it must also be quite challenging due to the lack of understanding of exactly what type of help is needed and how to implement such support in a manner in which it can be most effective.

One key area in which help is needed is with the development of marinas and the land areas immediately surrounding them. Having park land adjacent to marinas is pretty, but unfortunately does little to build this nascent industry. One needs only to look at world locations where marinas provide significant revenue, jobs and

stimulus to their respective locales. With the lofty goal of having yachts, leisure and sport boating as well as developing the cruise ship industries, it can be difficult to find the best fit for marinas in all of this. Although locations such as Fort Lauderdale or Miami, Florida demonstrate a fully developed version of this industry, I might also recommend looking at something that might be more in line with the goals of southern Taiwan for creating marinas that highlight the best in local specialties and attractions. This author grew up on Long Island in New York. While the Hamptons are famous, Long Island is home to hundreds of popular marinas located along both the north and south shores. Long Island is known for its boating. There are over 600 marinas to accommodate the boating population. The harbors with a multitude of bays and inlets provide the homes for all these vessels. The larger marinas have at least 75 slips or moorings at major Long Island ports. Docking fees vary. At private marinas, you can pay anywhere from \$40 to \$130 per boat foot and public marinas can charge as little as \$30 per foot. Look at marinas along Long Island's north shore that include Oyster Bay, Glen Cove, Cold Spring Harbor, Huntington Bay, and Northport Harbor as excellent examples of how local culture and artisans combine with locally famous dining to create unique venues that attract thousands each month. Please keep in mind that Taiwan is about 4 times larger than Long Island, so it is easy to see the potential for this industry. Furthermore, Long Island has its share of seasonal events which make boating difficult or impossible for several months each year, while Taiwan has the climate and sunshine to support year-round boating.

Marinas are not just places to dock a boat. Scenery, restaurants, shopping, hotels and Bed & Breakfast Inns, and activities are commonly built up around marinas, thus generating revenue, creating jobs and lifting the quality of life in general. Boat owners and passengers tend to spend their tourist and leisure dollars wherever they choose to dock. It is therefore somewhat accurate to describe a marina as a type of resort. It is recommended that infrastructure investment is needed to develop a network of marinas around Taiwan. We encourage local and central governments to release land areas surrounding potential marina sites in order to allow for greater investment from the private sector to create destinations that will attract boater from within and nearby Taiwan. Long-term investment is needed because to properly develop marinas and their surrounds in ways to maximize visitors and tourists. Going back to Long Island as an example, Northport Harbor, in the Township of Huntington, is one of several very popular places that attract not only boater, but a large number of visitors who walk, bike, and drive to enjoy the beautiful peaceful surroundings, eat at local restaurants, shop at specialty store, relax at cafes, and simply recharge their energy.

Another recommendation is for US boat builders, such as Bayliner, Sea Ray, etc. to connect with Taiwan's manufacturers in ways that will allow for these smaller boats to be sold in Taiwan. There are a number of reasons for this and each ties in nicely with marina development and leisure lifestyle tourism for Taiwan. Taiwan yachts are stunningly beautiful, totally luxurious, and of the highest quality. That means

they are expensive, and often out of the price range of first-time buyers or those who are interested in boating but do not have the means to buy something so expensive. America's many high quality small sport and leisure boat makers can provide the solution. It is our understanding that this idea is welcomed by numerous Taiwan yacht builders as a way to expand their sales. We recommend that AIT work to organize a visit by US boat makers to Kaohsiung for tours and discussions with their Taiwan counterparts to create a new "Entry-level" product line for sales in Taiwan. This will not only create local jobs and revenue, but it will also help to build up demand for marina spaces as well as to promote leisure lifestyle events and tourism around Taiwan.

One final note on Taiwan's boating industry is that AmCham Kaohsiung recommends that certifications for owners and pilots be more in accordance with international standards. This will align Taiwan more closely with the world, thus opening up more markets and increasing potential sales; more visits from foreigners looking to purchase boats means more booked hotel rooms, more restaurants busy, and more shops selling more goods.

The first ever International Boat Show, held last year at the newly opened Kaohsiung Exhibition Center, was an overwhelming success with more than 70,000 attendees and significant sales. Because of Kaohsiung Harbor's location specifically, and the islands location in general, Kaohsiung is the premiere site in Asia for International Boat Shows. With great weather, plenty of things to do around town, lots of excellent culture and food to enjoy, hotels and restaurants were packed every day of the event. In short, this was a money maker for Kaohsiung and its businesses.

There was talk immediately following the 2014 International Boat Show of doing it annually. However, this is extremely difficult to execute. In general, yacht makers need about 2 years to develop and build new models, so this event should be held every two years. Fortunately, a wonderful solution has been created; on alternating years, the KEC will be hosting a luxury lifestyle show. The first of which will take place this summer.

### **Kaohsiung Exhibition Center**

In recent years, Taiwan has hosted an increasing number of major international events, including the 2009 World Games, 2012 Junior Chamber International World Congress and the 2013 Asia Pacific Cities Summit (APCS), which have helped to increase awareness of Taiwan's MICE industry among corporate leaders and policymakers. For example, the APCS, which Uniplan Taiwan helped organize in Kaohsiung last year, attracted more than 1,800 academics, business leaders and government representatives from 132 cities in the region. The business workshops arranged during the three-day event, which was held from September 9th to 11th, led to approximately US\$110 million worth of trade deals and the signing of 27 memorandums of understanding. The event also earned Uniplan Taiwan the Gold Award in the Exhibition Group A category at the 2014 Taiwan MICE Awards, which are arranged by the Taiwan MICE Project Office.

The firm, which was founded in 1982, formed a joint venture with Germany-based Uniplan in 1987 to become one of its overseas branches. Today, Uniplan Taiwan consists of three companies dealing with conventions, exhibitions and marketing communications services, respectively, and manages the Kaohsiung Exhibition Center under contract from the MOEA. Tu says his company hopes to use its prominent position in the industry to promote the adoption of eco-friendly approaches, such as the use of modular exhibition booths. The firm is also examining the possibility of organizing new trade shows for high-growth sectors such as elderly care technologies and geriatric medicine.

Growing awareness of Taiwan's tourism resources, as well as the establishment of numerous new hotels, has helped enhance the country's appeal as a MICE destination. *National Geographic Traveler* included Taiwan on its 20 Best Trips 2015 list, praising the island's food and high-tech urban environments, while noting that Taipei has been named the 2016 World Design Capital. Taiwan is in the center of the Asia-Pacific region and has MICE services and venues that meet the highest international standards, so it will become a global leader in the sector.

KEC's charter is to manage the venue, giving southern Taiwan a place where the MICE industry can really take shape. Initially, KEC has been dedicated to giving existing organizers a premium venue where they can grow their shows (because KEC is larger than all other venues available in South Taiwan) and to bring their event standards up to an international level. Specially configured for conferences of over 1,500 people and for exhibitions with over 500 booths, KEC presents a great opportunity. Aside from managing the venue and making it available for organizers, KEC should also organize their own events when they see the opportunity. Care needs to be taken, because the idea is not to compete with its organizer customers; but where there is an opportunity, KEC should push forward in order to increase its occupancy rate, which brings attendees and visitors, which fill hotel rooms, restaurants, taxis, airports, and last but not least, the order books of exhibiting companies, bringing sellers and buyers together.

With this in mind, and due to the lack of an international boat show in 2015, KEC is launching a Super Leisure Lifestyle Show this coming summer. Targeting the upscale consumer, this B2C show will bring together high-end products that enhance leisure lifestyle. Boats, yachts, jewelry, high-end furniture, gourmet food and drink, cars, bicycles, helicopters and last but not least, outlet shopping all promise to be present, making for an exciting, must-see event! Save the date: July 30 to August 2, 2015.

Another example where KEC is an important proactive participant in southern Taiwan's future is the upcoming Geriatric Care Asia 2015, planned for November of this year.

**UPDATE – THE NIA** – according to the NIA, the most important issues from foreigners living in Taiwan are with regards to drinking and driving regulations, car accidents, overstaying visas, exit restrictions due to legal issues and issues surrounding labor disputes.

Human trafficking continues to be a main focus of the NIA's efforts to improve the quality of life for everyone here in Taiwan, and their efforts are mostly concentrated in prevention as a more effective method for dealing with this difficult problem. They have also been quite proactive in arranging anti-trafficking courses. As a result of these efforts, Taiwan has received a top rating for the fifth year in a row by the U.S. State Department Trafficking in Persons Report (TIP) which assesses 188 countries. AmCham K applauds the NIA for their hard work and continued diligence. Child pornography online is part of these efforts and it continues to be a very difficult issue to remedy.

According to information published in Jan. 2015, (extracted from the NIA website), foreigners currently living in Kaohsiung, Tainan, Pingtung, respectively number as follows: 57,985, 56,216, 13,875. Growth has taken place in those coming from the US, Europe, Mainland China, Vietnam and the Philippines, while those from Thailand and South America have seen modest drops.

The new automated entry system that was installed in January of 2013 continues to reward its participant with extremely fast and convenient passage through immigration at the airports. This service work for both incoming and outgoing travelers and is highly recommended.

Citizens of Mainland China, Hong Kong and Macau can now take advantage of new online application short term management certification system for the purposes of multinational business, education, trade, agriculture, transportation and others.

National Torch Plan for New Immigrants - From May, 2013 till now, the NIA continues to promote this program. According to the proportion of new residents for each elementary school, they provide appropriate subsidies to assist the new county and city residence and their children to adapt to the new life in order to create a multicultural society.

In Kaohsiung, the NIA signed Strategic Alliances with Kaohsiung American School, Morrison Academy, Wenzao Language University, National Kaohsiung Normal University, National Sun Yat-Sen University, Kaohsiung Medical University, National Kaohsiung First University of Science and Technology, Cheng Shiu University, National Science and Technology Museum and so on, in order to help the Kaohsiung foreigners to resolve their difficulties.

It is through their continuing hard work and proactive approach in dealing with the myriad of issues facing foreigners in Taiwan that the NIA has really made great advances in the quality of life, convenience and confidence that foreigners in Taiwan now enjoy. There is of course much more to do, but AmCham K commends the NIA for all that they have accomplished.

## EDUCATION

Confucius, one of Taiwan's greatest educators, once said, "Education breeds confidence. Confidence breeds hope. Hope breeds peace." Taiwan continually ranks highly in international rankings measured by testing results in Math, Science, and Reading. However, many international human resource firms rank Taiwan rather low in critical thinking, creativity and initiative. Southern Taiwan's ability to attract foreign investment and develop its own entrepreneurial industrial base will depend on the development of labor and management with more creative and entrepreneurial skills. Economic development lies hand in hand with educational reform. We must build not only a knowledge based labor pool but a dynamic, creative, and highly confident labor base that will spur innovation and investment in Southern Taiwan.

Recent reports say that the Ministry of Education will allow foreign educational institutions to locate on island in free trade or economic zones, and therefore will help facilitate a more rounded liberal arts education and greatly add to the human resource assets that Taiwan has and can develop. However, the cost of these institutions will prohibit many Taiwan students from attending. It is recommended that the Ministry of Education work closely with local city and county governments to create experimental schools in higher education focusing more on a liberal arts education and the education of the whole person instead of on testing results.

The ability to attract foreign students to Taiwan should also be accelerated. Many countries are now subsidizing mandarin programs in the public school educational curriculum. Private mandarin schools and educational tools are growing in popularity in the US. Taiwan should take advantage of this trend and develop better platforms to entice, teach, and measure foreign students studying mandarin in Taiwan. Successful execution of such programs helps legitimize Taiwan over China as a place for learning and understanding of Chinese culture and heritage. Such programs will also internationalize Taiwan and help develop and import new and creative ideas that will help Taiwan's own economy.

Developing strong programs to help foreign students should be an important economic as well as political goal for Taiwan to bring awareness to the rest of the world of Taiwan's current situation, unique assets, and great investment environment. Only through the exchange of ideas and the embracing of new ideas and thoughts can a place become 'international'. The current lack of diversity in Southern Taiwan stagnates growth and innovation. A more carefully thought through program that brings good students to Taiwan to learn Mandarin but at the same time creates an investment atmosphere for them to create, innovate and invest with their Taiwan counterparts would be of great benefit to the Southern Taiwan economy.

Lastly, the number of Taiwan students bound for US Colleges and Universities has decreased dramatically over the last decade. The past generation of Taiwanese industrialist were mostly educated in the US or Japan. It is important for Taiwan to maintain and encourage Taiwan students to seek some education outside of Taiwan.

This will only increase understanding of Taiwan to the outside world as well as bring back investment and intellectual capital to Taiwan when its students return. As Taiwan is positioned in a unique and competitive advantage for reaching both the China and Southeast Asian markets, it is safe to assume that students going abroad will return with investment in hand to leverage the new ideas they learned overseas while taking advantage of their Taiwan heritage. Therefore it is important and imperative that Taiwan reverse the trend of decreasing amounts of students studying in the United States and abroad.

Addressing these three key concepts will yield much improved dividends to the Southern Taiwan economy. Creating an entrepreneurial, dynamic and creative momentum that is of and from the labor pool versus reliance on outside stimulus and investment that may not be directly controllable by government and businesses in Southern Taiwan. Education and education policy to create innovation, ideas, creativity, and change is imperative to the development of Southern Taiwan's future economic growth and international relevance.

Kudos to Kaohsiung American School (KAS) and Morrison Academy for the quality of education they offer and kudos to Mayor Chen for supporting these international schools! Both KAS and Morrison are expanding to meet the needs of the communities better.

**MORRISON ACADEMY** was established in 1952 and offers a college-preparatory and American-based Christian affiliated education to expatriate children living in Taiwan. Morrison Academy was founded in Taichung, where one of the campuses is located, but additional campuses have been created in Taipei (Bethany) and Kaohsiung (Morrison Academy Kaohsiung). Although established in 1952 to serve the needs of missionary kids, Morrison Academy has attracted a large number of business children. Morrison Academy is currently the largest international school in Taichung and the largest Christian school in Taiwan. The school is recognized by Taiwan as an international school and is restricted from accepting Taiwanese who do not possess a foreign passport. Graduates from Morrison Academy often attend North American colleges and universities. Because Morrison Academy is composed primarily of missionary kids and business expatriates, a wide range of countries is represented in the faculty and the student body. However, the teachers and the students primarily come from the United States and Canada. Morrison boasts the longest teacher retention rate in Taiwan, no doubt a testament to the motivational level of its staff and commitment of its Christian core ethic. The vision of Morrison Academy is that every student will experience a quality, biblically-integrated education, so that each one will be equipped to impact the world dynamically for Christ. Morrison Academy is a fully accredited K-12 educational institution. The school is currently accredited through two internationally recognized accreditation associations: the Association of Christian Schools International (ASCI) and the Western Association of Schools and Colleges (WASC). Both organizations require

exacting compliance with the strictest of standards for educational standards and facilities to ensure both excellence in educational quality as well as continuity with existing educational systems in the United States and other western-based educational systems. Toward this end, both ASCI and WASC have carefully examined Morrison's commitment to their mission statement, Vision for their Learners, curriculum, facilities, staff development, and school management systems. They have certified Morrison Academy meets the high rigorous standards that these accrediting 45 organizations have deemed essential. Morrison Academy's accreditation expires in 2015, and will be visited by an accreditation team for re-accreditation in March of 2015.

The Kaohsiung campus is a true oasis; spacious, beautiful and peaceful. Morrison Kaohsiung is currently expanding to include High School grades to offer families more choice of whether they want to keep their children in Kaohsiung for High School or send them to Taichung for a boarding experience. Morrison Kaohsiung has added 11th grade in the 2014-2015 school year, and will be celebrating their first graduating class in the 2015-2016 school year. Also in March, 2015, Morrison Kaohsiung will be opening their newly built high school wing which includes additional classrooms, a science lab, a fitness room, and a student lounge.

## **KAOHSIUNG AMERICAN SCHOOL**

Kaohsiung American School, established in 1989, (KAS) is a private, non-profit, Pre-K to Grade 12 institution offering a college preparatory program leading to a US high school diploma. The list of colleges and universities that KAS graduates attend is very impressive and includes such schools as UC Berkeley, Georgetown, and schools in the Ivy leagues.

KAS is an International Baccalaureate (IB) World School and an IB MYP School, accredited by the Western Association of Schools and Colleges (WASC), and a member of the Association of China and Mongolia International Schools (ACAMIS), the East Asia Regional Council of Schools (EARCOS), and the Council of International School (CIS). The high school staff includes 20 classroom teachers and a college counsellor; the majority of whom are from the USA and Canada. The 275 high school students (9-12) represent over 15 countries, including the USA, Taiwan, Canada, Japan, Singapore, New Zealand, the UK, France, the Philippines, and others. The total prek-12 KAS student enrollment is 620 students and has grown for 9 consecutive years. A high percentage of the student population is overseas-born Taiwanese holding a foreign passport. Most members of the class of 2014 are non-native speakers of English. KAS earned recognition as an IB World School in 2010. A community service graduation requirement of 40 hours exists for all students; additional service hours are required for IB Diploma candidates. Extracurricular offerings include junior varsity, varsity, and ACAMIS athletics, such as, soccer, basketball, volleyball, and track. Other extracurricular activities include the World Scholars Cup, Model United Nations, Cadenza Club, Flute Ensemble, Baroque Ensemble, National Honor Society, International Club, and Student Council. In all,

there are more than 30 different clubs and athletic teams offered at the high school level. KAS is currently involved in a major renovation and expansion of its campus with the goal of creating a comprehensive, state-of-the-art learning facility. Phase One consists of the academic and fine arts facilities, including a theater seating more than 400, and opens its doors on April 20, 2015. Phase Two is set to open in September of 2016 and will include an indoor swimming pool and gymnasium, a cafeteria, and play fields. The new school is being built for 800 students.

## **BUILDING ON REGIONAL ADVANTAGES**

- Byline: STEVEN CROOK Publication Date: 03/01/2015  
*Cities in central and southern Taiwan are boosting their MICE sectors by developing new facilities and capitalizing on local industrial clusters.*  
Countless international businesspeople have become intimately familiar with venues such as the Taipei World Trade Center (TWTC) in recent decades as the Republic of China's capital cultivated a global reputation for excellence in the meetings, incentives, conventions and exhibitions (MICE) industry. Now cities and counties across the nation are seeking to emulate this success by constructing new facilities and expanding MICE services—efforts that are being aided and promoted by the central government's Meet Taiwan program.  
The initiative, which is overseen by the Bureau of Foreign Trade under the Ministry of Economic Affairs (MOEA), aims to enhance the quality of industry services and strengthen Taiwan's brand in order to turn the nation into one of the world's leading MICE destinations. "The program is an integrated strategic marketing plan to promote the overall image of Taiwan's MICE sector, and it includes cities such as Taichung as well as Taipei and Kaohsiung," explains Philip Huang (黃汀村), director of the Taiwan MICE Project Office, which was set up in 2006 under the MOEA and manages Meet Taiwan.  
One aspect of the program involves the development of human resources. "We've created training programs with syllabuses based on the needs of stakeholders within each geographical region," he says. "In 2013, we held approximately 70 professional courses across the island." Meanwhile, since 2013 the program has been offering support to the special municipalities of Taipei, New Taipei, Kaohsiung, Taichung and Tainan as well as Hsinchu City and the counties of Chiayi, Hualien, Pingtung and Yilan. "We not only provide local governments with professional advice, but also assist with advertising," Huang says.  
The annual Taiwan MICE Awards, which are arranged by the Taiwan MICE Project Office, highlight the overall growth of the industry. "Many of the winning events have been held outside of Taipei," the director notes. For instance, the Taiwan International Orchid Show (TIOS), organized yearly in the southern city of Tainan since 2004, won prizes at the awards ceremony in 2013 and 2014, receiving the Gold

Award for Exhibition Visual Design and the Bronze Award in the Exhibition Group A category, respectively.

“One in every six orchids sold around the globe is from Tainan, and TIOS is one of the world’s top three orchid shows,” says Yeh Ting-chun (葉亭君), a member of the Tourism Service Section in Tainan City Government’s Tourism Bureau. Yeh believes that the city has much to offer as a MICE destination due to its diverse mix of ecological and heritage sites. “Last fall, the Hong Kong Association of Travel Agents held their annual overseas convention in Tainan Wu Garden, and participants said the city’s abundance of culture and traditional atmosphere are big attractions for people from Hong Kong,” she says.

The municipality is renowned for cultural sites like Tainan Wu Garden, which was commissioned almost 200 years ago by a wealthy salt merchant. However, Tainan City Government also recognizes the need to complement these advantages with modern facilities, and its plan to build a convention center big enough for 600 standard booths near Tainan High Speed Rail station was ratified by the central government in 2012. “Tainan City Government and the Bureau of High Speed Rail [BOHSR] have jointly started recruiting corporations to invest in the development, and the city government is considering buying land from the BOHSR so it can accelerate the process,” she adds.

Jun Shinohara, director of sales and marketing at Shangri-La’s Far Eastern Plaza Hotel, Tainan, believes such infrastructure improvements are essential if the city is to host more international conferences. “Tainan has huge potential to attract both domestic and overseas visitors,” says the Japanese native. “But air links, public transportation services, and the number of guest rooms and conference venues must be expanded.”

Although Tainan’s airport was upgraded to international status in 2011, the city has lost MICE business to Kaohsiung because the latter is easier to reach from overseas, Shinohara says. Nonetheless, he is optimistic about the potential for growth in the short term. “Currently, less than 10 percent of our total room revenue comes from MICE, but we’re targeting 10 percent and more in the near future,” he says.

While Tainan is seeking to capitalize on its abundance of cultural sites, Taichung is boosting its MICE sector by taking advantage of local industrial clusters. Taichung and Changhua County in central Taiwan are home to more than 1,000 companies involved in the making of bicycles and bicycle components. Many of these enterprises are original equipment manufacturers that produce frames, wheels and other items which are then sold by North American or European brands.

The global importance of this cluster is demonstrated by the success of Taichung Bike Week (TBW), a business-to-business trade show that facilitates meetings between local suppliers and international buyers. TBW, which started out as a series of ad hoc gatherings in 2004, has been a formal event since 2007. “We had fewer than 50 visitors in the first year. In 2014, we had over 4,000, almost all of whom came from overseas,” says Steve Fenton, TBW’s co-founder and main organizer. The event

is now considered one of the most important in the global bicycle industry, and has become so popular among product managers from North American companies that organizers have decided to stage it at an earlier time this year to better accommodate their schedules. While in the past the show was held in November, the 2015 edition will take place from October 20 to 23, explains Fenton, who is also the chief executive of Taichung-based bike wheel manufacturer Pro-Lite International.

In recent years, TBW has been held in four of Taichung's largest hotels. "We fill them up, turning all the available space into meeting venues," says the Englishman, who notes that many international buyers stay for more than a week. "They use the days before and after to visit factories and agents. It's very convenient because if you're staying in a hotel in downtown Taichung, you're no more than 45 minutes' drive from 95 percent of Taiwan's bike component suppliers."

In Fenton's opinion, the city's MICE industry faces some obstacles to growth, however. For instance, he believes that Taichung's nightlife has yet to recover from a 2011 crackdown on illegal and improperly registered bars and restaurants. He also points out that relatively few establishments are able to issue the kind of receipts that businesspeople need to claim expenses. "Visitors often have to organize their own entertainment," he says.

Still, there are many reasons to be optimistic about the future of the sector in the city, particularly considering that construction on a state-of-the-art convention and exhibition center is expected to begin this year and be completed by 2018. In fact, the growth of the local MICE industry has already encouraged some shows to move to Taichung. Between 2001 and 2012, Taiwan Hardware Show (THS) was held at the TWTC, but it relocated to the central municipality in 2013. "One of the main reasons we moved to Taichung is the region's hardware industry cluster," explains Gerd Keim, president of Kaigo Co., the show's organizer. "Around 70 percent of Taiwan's hardware and tool manufacturers are located in or near Taichung."

Despite the change in location, visitor numbers increased in 2013. And there was further growth in 2014, when more than 350 exhibitors drew 3,658 international businesspeople from 67 countries as well as almost 22,000 domestic attendees. "After surveying visitors, we realized they found Taichung just as accessible as Taipei," says Keim, a German national who founded Taipei-based exhibition organizer Kaigo in 1978. The show's venue, Greater Taichung International Expo Center, is less than a kilometer from the city's high-speed rail station.

While accessibility is typically crucial for success in the MICE sector, some scenic hotels are attracting meetings and incentive groups by highlighting their natural settings. MICE business accounts for around 3 percent of the Chateau Beach Resort Kenting's revenues, says Chen Hsi-Chun (陳溪圳), chairman of the company that owns the hotel in Kenting National Park on Taiwan's southern tip. "Our biggest international event was in 2013, when Nike came from mainland China with about 100 staff for a three-day team-building event," he says.

Jackie Chao (趙嘉綺), director of sales and marketing at Silks Place Taroko (SPT) in Taroko National Park in eastern Taiwan's Hualien County, notes that the luxury hotel is also making the most of its unique setting. "Our conference facilities aren't especially large because of the way the building was originally designed. However, MICE is a key marketing angle, and conferences account for 5 to 10 percent of our revenue," he says.

The park's centerpiece is Taroko Gorge, one of Taiwan's best known natural attractions, and the five-star SPT is situated in Tianxiang, a scenic area at one end of the gorge. "Most of the MICE groups that select SPT require 30 to 50 rooms," Chao explains. "Many of those who come here for a conference say the natural environment helps them brainstorm. And they often spend the following day sightseeing and exploring the hiking trails near the hotel."

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*Steven Crook is the author of Taiwan: The Bradt Travel Guide.*

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**SCANDALS THAT DAMAGE TAIWAN'S IMAGE** – unfortunately, there seems to be a growing trend in the number of scandals, most notably in the recent stories involving the food industry, that require significant changes be made to the regulations governing business ethics. It is worth noting that these instances are not limited to this industry only. What is truly shameful is that in some cases, where personal greed has become more important than quality and integrity, all of Taiwan is made to suffer. Consumers suffer since buying products having government food safety certifications are now in question as is the impact on health due to exposure or ingestion of substandard products; honest businesses suffer because they are being sold substandard ingredients that result in products being taken off store shelves and their corporate reputations tarnished; Taiwan's image is damaged by each new scandal that becomes international news; and the Taiwan economy suffers with international clients choosing alternative source for products and tourists decide on other destinations for fear of health issues concerning local food. Greater responsibility is sorely needed; both from the government and the private sector. Government agencies responsible for food safety need to be more vigilant; not merely accepting samples supplied by those companies whose products require testing, but random testing of products to confirm that samples received accurately reflect what is the norm. On the other side of responsibility, those companies found to be using substandard ingredients need to be held more accountable, with greater punishments handed out for violators of the public trust.

We would recommend the following guidelines: for first-time offenders, regardless of any fines and/or penalties that might be incurred under legal authorities, product

testing should be mandated to be at a minimum of 6 times in the year following the violation. These product tests should be done by having random testing done on samples purchased by an appropriate government entity, and tested with the costs borne by the company whose violations caused this incident.

Second time offenders should be subjected to a more comprehensive set of tests (also in addition to any legal fines or penalties incurred) that would include all products manufactured at the offending facility, again for a minimum of 6 times in the first year, plus quarterly testing for an additional 2 years. Again, the costs of the testing should be borne by the violating company. In the situation where different divisions, or companies that are a part of the same parent company, are shown to have violated laws or regulations, it can be seen as a pattern of abuse and should be treated more harshly. In cases such as this, the entire product line under the umbrella of the parent company should be subject to comprehensive testing similar to what was previously stated. Although this might seem to be a rather harsh response, what must be made clear is that those who follow the rules and act within the code of business ethics need not be concerned. However, those who choose profits over corporate responsibility will need to understand the risk they take by doing so.

A “three strikes and you’re out” approach should be taken for companies who repeatedly violate the public trust by breaking applicable laws or by trying to work around the rules by exploiting potential loopholes.

Another very disturbing trend in scandals in Taiwan is from former executives and head-hunters stealing away talent from critical industries in Taiwan. What is most troubling is that these individuals threaten the very future competitiveness of Taiwan by selling out to foreign companies that seem to be long on cash and short on ethics. These actions are to be denounced as anti-Taiwan acts, and the perpetrators need to be punished accordingly.

### **DEVELOPING A SOUTHERN TAIWAN TECHNOLOGY CENTER FOCUSING ON THE ENVIRONMENT**

- commercializing Taiwanese environmental technology. There exists a number of existing companies and organizations throughout Taiwan that support developing new technologies that can result in improvements to the environment. This is a very positive thing for Taiwan and is to be commended. However, most if not all of these don’t bridge development with commercialization. They do a great job in development and then look to transfer technologies into the business world. In some cases, businesses have great concepts, attempt to develop them in-house (to varying degrees of success), and then try to generate revenue streams from their technologies (again, to varying degrees of success). Sometimes, they look to organizations like ITRI for help. ITRI is an outstanding organization and has an excellent track record. But for some, there are additional needs that go unmet, or business plans that fall short of expectations, or in some cases they simply run out of money to continue (stranded assets). Here is where Venture Capital (VC) firms often step in. They can be a positive thing, but all

too often fail in the end to meet the expectations of the source company. The reason for this often comes down to the VC's business framework; invest cash, build up the company value over a 3 to 5 year period, and then divest and take profit. The problem with this approach is that the main goals of the VCs are quite different from those of the source company they become involved with. In the most unfortunate instances, the perceived value of the company becomes inflated due to efforts made by the VC to maximize their profit potential. Since the VC's involvement is for a closed period of time, their motivation is to create maximum value and then sell their assets at the end of 3 to 5 years. In many cases, this leaves the source company in worse condition than before the VC got involved. And sometimes, the company goes out of business or loses everything.

Perhaps a more productive means by which to go about this is by establishing Technology Commercialization Centers (TCC) or Venture Commercialization Centers (VCC). These centers would look at potential cases, meet with the principals to discuss their needs and goals, and ultimately agree to partner in both the development and commercialization of the technology in question. This would often include supplying funding, expertise in R&D, engineering support, testing and certification procedures, and a sound business framework by which the end product can be successfully brought to the market with both the source company and the TCC/VCC sharing in the profits. The main difference here being that the ultimate goals of both the source company and the TCC/VCC are identical; to fully develop, market, and profit from various technologies that offer improvements to the environment, greater efficiencies, more jobs and a sustainable future. The goals are not limited by time constraints; rather by market forces. For the source company, it significantly lowers the risk since there are no conflicts in the ultimate goal. For the TCC/VCC, there is the ability to provide specialized support and expertise, plus another potentially much more important benefit. As the TCC/VCC expands through a growing number of projects, it can remain both flexible and innovative by looking at additional ways in which the source company's technology might apply to different products. This can expand the reach of any given technology, as well as the profit potential. A full service TCC/VCC should also offer training for the source company so that any shortfalls in marketing abilities can be addressed thereby enhancing the capacity for success.

In addition to working with source companies, the TCC/VCC can work with organizations such as ITRI in providing additional facilities and experts for developing, testing and certifying new technologies. Southern Taiwan is perfect for this type of enterprise for a number of reasons. It will create good jobs that pay well, it will attract high-end talent back to southern Taiwan as well as keeping more of the talent back home, it will attract more international talent into southern Taiwan which will increase spending and tax revenue, it will marry the international access by sea and air with the resources needed to become a world-recognized hub for environmental technology development and commercialization. Since southern Taiwan has the available land and room for growth in clean manufacturing,

technologies from other countries can be imported for local manufacturing for domestic use as well as export.

**HEALTH CARE, A NEW INDUSTRY OPPORTUNITY FOR TAIWAN** – Taiwan enjoys one of the world's best health care systems in terms of quality, affordability and access. The trend towards an aging population means that the health care industry will see growing pressure in the years to come. But there is a potential bright side to this; establishing communities specifically for retirees, both Taiwanese and foreigners. There has been a growing trend around the world in developing combination retirement/health care communities. Southern Taiwan especially can be an ideal destination for foreigners to live out their golden years in peace, in an ideal climate and culture, and with great health care.

As an industry, it is advisable to establish destinations for those who have solid financial means. Communities can be designed specifically for the needs of the aging, with easy access residences, proximity to shopping, and with health care facilities on site. There are 2 distinct models that can easily be adapted to fit perfectly into the southern Taiwan lifestyle and geography.

The first would be for high-end retirees; with attached or semi-detached single floor homes with no steps to cause access problems. Each home can be fully equipped with the latest in monitors, communications, safety systems and conveniences that would make life simple and safe for its residents. On-site activity centers could provide for entertainment and activities specifically geared towards the elderly, in a quiet and safe environment. Built-in solar/wind power, waste management systems, and water purification equipment would allow for uninterrupted power and water under any circumstances. An on-site geriatric care center would be equipped and staffed to handle the most common situations, but with the means needed to rapidly transport patients to nearby hospitals when a higher level of care is required. Some of these existing communities offer such niceties as a restaurant, Movie Theater, miniature golf course, and a number of areas where exercises can be promoted and supervised. In addition, a shuttlebus service can be provided for daily trips to and from shopping centers, supermarkets, and downtown areas. All of this will come at a cost, but by consolidating the common needs for living as a senior citizen into a specialized community, this becomes an affordable and desirable lifestyle. A similar type of community can be designed and built for middle income residents; having the same features but with more modest housing.

The second option would be slightly less expensive but with the same levels of services, activities and transportation. The difference would be that these communities would be built around high-rise residences that could house many more people. The economics of scale would be a major factor in its success.

In both cases, certain prerequisites would apply; the establishment of local bank accounts with minimum deposits to ensure that the residents could afford to live there; the purchase of the home that they would live in; monthly fees to cover common charges and expenses, etc.

By creating retirement communities specially designed and equipped for senior citizens, efficient and cost effective methods can be used to maximize care, convenience and quality of life, while minimizing costs by centralizing care facilities. There can be international communities and domestic ones according to what best fits the needs of potential residents. On-site guest accommodations can also be built so visiting relatives can stay nearby in modern and comfortable units that would be available at a reasonable cost. Families could then visit with loved ones without creating any difficulties for residents.

In many countries around the world, this is big business. For Taiwan, it can certainly become an extension of its growing medical tourism industry. Establishing retirement communities and geriatric living centers can generate new revenue to help support the island's health care system. Taiwan is an affordable and culturally rich place and compared with other destinations would be a very attractive option for those in their golden years.

### **SILVER-ECONOMY INDUSTRIES IN KAOHSIUNG**

Kaohsiung, located in southern Taiwan, is a tropical harbor city with warm climate and lovely sunshine. As the largest land area of any special municipality in Taiwan, Kaohsiung offers six (6) key advantages to support a sound and robust silver economic development, namely:

- (1) Excellent geographical position and logistics for the people within 2 days living circle in Asia, America, and Australia;
- (2) Outstanding sea and airports with a natural advantage of good year-round weather;
- (3) Comprehensive industry clusters and medical care service;
- (4) Abundant manpower supply;
- (5) An extensive industry transportation network; and
- (6) Complete provisions for foreign businessmen, including excellent accommodations, restaurants, mass transit and entertainment.

According to the UN, there will be 2 billion people aged over 60-year old by 2050 when the number of elderly will be more than children under 5 in the world. Ageing populations not only pose challenges over the healthcare service, but also create many business opportunities to target a potential and growing market. Opportunities come to those who well prepared.

It should be the policies and development of Kaohsiung to help the business for silver-economy industry:

#### **1. Biomedical Device Industry:**

To expedite industrial development, the Kaohsiung City Government should take into consideration local characteristics, geography, population structure, and existing infrastructure to move toward less energy intensive, less polluting, high-value-added industries, one of which is biomedical device industry.

Southern Taiwan Biomedical Device Industry is clustered in the Kaohsiung Science Park situated between Luzhu, Gangshan and Yong-an Districts of Kaohsiung City with a total area of 1,409 acres. Through the integration of biomedical industries, Taiwan's prominent dental and orthopedic industries are connected, including integration of the suppliers of dental treatment units, dental drilling machines, dental images, etc., and the organization of product lines covering artificial joints, spinal treatments, wound treatments, etc., so as to further provide one-stop shopping for dental and orthopedic businesses in Kaohsiung.

Furthermore, combining the pharmaceutical industry (including traditional Chinese herbal medicine and chemical medicine) and newly-emerging biotech industry (including biomedicine, regenerative medicine and food biotech) in the Southern Taiwan Science Park and the medical human resources from Kaohsiung Medical University, E-Da Hospital, Kaohsiung Chang-Guang Hospital and Kaohsiung Veterans General Hospital; Kaohsiung is definitely the best city for developing full-blown medical care services and health preservation villages for the elderly.

## 2. Healthcare IT service:

With advent of Information Technology, many countries are using Electronic Health Records (EHR) or Telecare to improve their healthcare system. With collaboration from healthcare service providers, manufacturers of physiological monitoring equipment, transmission interface equipment and other monitor equipment and integrated system providers, Healthcare IT service form a platform to exchange medical information and manage healthcare service, providing end-users (patients) with up-to-date health conditions on their own and faster and more accurate diagnoses. Kaohsiung, with the support from Kaohsiung Science Park and Kaohsiung Software Technology Park, has advantages on its home-based information technology, human resource from the IT and medical industry and is a potential partner for foreign investors to develop Asia healthcare services.

In addition to the above-mentioned bio-medical device industry and smart Medicare services, Kaohsiung is now devoted to establish the Asian New Bay Area, including the construction of Kaohsiung Exhibition Center, Maritime Cultural & Popular Music Center, Kaohsiung Port Terminal, Kaohsiung Public Library and Kaohsiung light rail vehicle system. With such projects already completed and others becoming operational in the near future, Kaohsiung city's infrastructure will be a great attraction for those silver-economy industries. And Kaohsiung shall have the vision to be and will be a wonderland in Asia of silver-economy industry

## **TOBACCO, HEALTH AND TAXES**

Tobacco, healthcare and taxes are an extremely complex mix that often creates emotional and heated debates from various groups. AmCham K will not take sides in this debate however we do see reason to highlight certain points being expressed from the industry perspective.

Suggestion 1: Adopt a moderate, reasonable and predictable tobacco tax/health surtax policy

On the eve of 6th anniversary of last amendment to the Tobacco Hazards Prevention & Control Act (THPCA), director-general Chiou of the Health Promotion Administration pledged to continue pursuing a health surtax increase.

The tobacco industry has consistently supported moderate, reasonable and predictable tobacco excise tax/ health surtax increase policies. Such policies would assist the government in achieving its public health and revenue collection objectives without causing any unintended negative consequences, in particular the growth of illegal trade which among other things undermines the investment environment for legitimate businesses.

On the contrary, unreasonable tobacco excise tax/ health surtax increase policies will give rise to bad results. Unjustifiable increases of tobacco taxes in several Asian countries clearly demonstrate this negative correlation. For example, after Brunei increased excise duty on cigarettes by 339% in 2010, the market share of smuggled tobacco surged to 89.8%. In Malaysia, the market share of smuggled tobacco jumped to 36% after the 15% increase of excise duty on cigarettes in 2010.

In Taiwan, in May 2013, amendments to the THPCA and to the Tobacco and Alcohol Tax Act were passed by the Executive Yuan. If further passed by the Legislative Yuan, the amendments will increase existing health surtax by NT\$20 and tobacco tax by NT\$5 per pack, resulting in a total NT\$25 rise per pack. In anticipation of this potential increase, the amount of smuggled tobacco seized in 2013 subsequently climbed to 21 million packs, a stunning 58% increase (equivalent to 7.9 million packs) compared with 2012, according to the statistics provided by the Ministry of Finance's National Treasury Administration. Additionally, there are strong indications that this policy of steep tobacco excise tax/ health surtax increases has unintentionally fueled the illegal trade in cigarettes, resulting in lost tobacco tax revenue for the government and damage to the legitimate tobacco business.

In the interest of meeting the government's revenue and public-health objectives, it is recommended that:

- (1) Any increase in the tobacco excise tax/ health surtax be moderate, reasonable and predictable and that the government take into serious account the potential negative impact posed by the illegal trade in tobacco products caused by immoderate tax increase policies;
- (2) The government develop relevant and supplementary measures to effectively control the disruptions caused by the illegal trade in tobacco products unintentionally fueled by the increase in tobacco taxes, thereby helping to stabilize the market; and

- (3) The government enhances law enforcement to clamp down on the illegal trade in tobacco products and take all measures necessary to prevent the illegal trade situation from getting worse.

Suggestion 2: Ensure effective and proportionate tobacco control policies in line with Taiwan's international trade obligations and engage in comprehensive dialogue with all stakeholders before considering further tobacco control regulation in general and plain packaging for tobacco products in particular

Since late 2012, tobacco products in Australia can only be sold in olive-colored packets, with brands printed in small standardized font. The United Kingdom in late 2014 also notified the World Trade Organization (WTO) of its Standardized (plain) packaging of tobacco products bill. Following this trend, some lawmakers and NGOs in Taiwan are currently discussing the introduction of "plain packaging" for tobacco products as part of their proposed amendments to the law.

While the tobacco industry has always believed that appropriate and proportionate regulation of tobacco products is both necessary and right in order to protect public interest, they are however deeply concerned with plain packaging with regard to the points below:

- Plain packaging would infringe intellectual property rights and violate the principle of the freedom of trade

Standardized plain packaging for tobacco products would preclude legitimate trademark owners from using their registered trademarks on the very products for which they have been developed, applied and protected, thereby effectively destroying the value of these trademarks and brands.

With international trade as its mainstay of economy, and as a member of the WTO, Taiwan is obligated to comply with existing international intellectual property agreements and laws such as the WTO Agreements on Trade-related Aspects of Intellectual Property Rights. Enforcing such a plain packaging law would grossly undermine Taiwan's obligations as well as the open and non-discriminatory environment of international trade safeguarded by the WTO that the Taiwan economy relies on.

- Plain packaging would increase illegal trade

The implementation of plain packaging would make counterfeit and contraband products easier to make, distribute and sell which would result in a significant increase in demand for illegal products and have a negative impact on legitimate owners. In addition, the increase in the levels of illegal trade would also reduce tax collected in Taiwan.

In light of the above, it is suggested that the Taiwan Government consider the following before considering further tobacco control regulation in general and plain packaging for tobacco products in particular: :

- (1) Engage in comprehensive and transparent dialogue with all relevant and impacted stakeholders, and consider reasonable alternatives that have already been proven effective in other markets; and
- (2) In the case of plain packaging, and in the absence of any assessment by the WTO of the legitimacy of Australia's plain packaging legislation, consider the ramifications that unsound tobacco control policies, and the introduction of plain packaging in particular, may have on Taiwan's international trade obligations

## **KAOHSIUNG AREA PETROCHEMICAL INDUSTRY**

### Petrochemical Industries Contributions to Taiwan

The Kaohsiung petrochemical industry has always been an important and fundamental manufacturing base for Kaohsiung and Taiwan as a whole. According to data from the Statistics Department of the Ministry of Economic Affairs, the total production value of raw chemical materials in 2013 reached 2.2 trillion NT dollars, while the total production value of all chemical related industries was 4.4 trillion NT dollars. The chemical industry as a whole therefore accounted for 32% of Taiwan's total manufacturing output. The importance of the petrochemical industry to both Taiwan's employment and total GDP cannot be overstated.

In Kaohsiung the industry employ over 5,000 people directly in Linyuan and Dashe industrial parks and if we include the entire downstream production and value added industries that employment figure tops 100,000 workers.

However, starting in 2016, CPC's #5 Naphtha Cracker will be demolished. The loss of the #5 plant will cause severe shortage of Ethylene supplies to the Taiwan petrochemical industry. It is estimated that Taiwan will now need to import 50-100 tons from other countries to make up the shortfall. Although CPC will still continue to operate Naphtha Cracker plants #3 and #4, they will not be able to produce sufficient amounts of Ethylene to meet demand. Since the gas explosion in the summer of 2014 many supply lines and pipes have been shut down also effecting to places such as Renda Industrial Park. The chamber, as mentioned earlier, understands and sees the need for safety and continual upgrading of the raw materials supply infrastructure. However more coordinated and planned execution of the upgrades should be made with industry players to ensure that production capability will be maintained and jobs kept.

Also the government's plan to change Dashe Industrial Park Zoning from its current status to a B zoned park, reducing the amount of pollution output, will make any petrochemical manufacture in the park prohibitive and jobs will be

lost. As this planned change is still being discussed, it is hoped that a comprehensive review of the actual pollution material output from the industry will be reviewed. Most companies in the park have taken step and already implemented technologies that lower their pollution output to levels that meet or exceed current government regulations; so any changes in the zoning of the park could potentially lead to a triple loss situation in where government tax revenue, employment, and economic outputs are all lost.

Industries in Kaohsiung are now proactively coordinating with the Ministry of Economic Affairs to develop higher quality petrochemicals with less toxic bi-products and waste. Many companies are having good results in developing these new world-class products and using less energy in processing with much waste reduction. The industry itself understands the importance of changing from a polluting industry to one that produces needed chemicals and products but in an environmentally responsible and cost effective way.

This leads to better economic output, and positions Kaohsiung at the forefront of sustainable manufacturing production.

Therefore members of the petrochemical industry of the chamber recommend that the city governments consider the following:

A. Reinforce and think through the security, logistics and management of the underground pipeline infrastructure. Safety should be a great concern to both the public and the production facilities. Secure, safe and timely supply of required materials is paramount to keeping jobs and output in Southern Taiwan. The central government, Ministry of Economic Affairs, and city governments must work together to build a platform and system that provides manufacturers with needed supplies in a safe, environmentally conscience way that ensures public trust while ensuring economic output. Government agencies must work with industrial leaders, public works offices, fire departments, labor bureaus, the EPA and other stake holders to create a comprehensive and safe system that a modern city needs to have.

B. Announce an explicitly detailed plan and discussion forum of zoning considerations for Dashe Industrial Park. A comprehensive impact study of all changes should be made looking at any decision in a holistic way that creates the best outcome both environmentally and economically for Kaohsiung. Should zoning changes be made the government entities and bureaus should come up with a comprehensive plan on how industries can adapt in ways that creates the least disruption and economic hardship to factories and workers.

C. Review and modify relevant laws and accelerate the decision processes on creating and setting up special petrochemical economic zones.

Because of the importance of the economic footprint the petrochemical industry has on Southern Taiwan, priority should be given to developing a comprehensive plan of action that considers public safety, environmental input, job security and growth and overall economic impact for the industry. Long term

planning should be implemented as soon as possible to confirm the future viability of this key industry for Southern Taiwan,

## THE OFFICIAL SIDE OF THINGS

### MOFA

Does MOFA feel relationship between US and Taiwan is strong?

**A:** Since President Ma's term, the US government highly affirms the Taiwan and China policy and the principle of "low-key" plus "no accident" between the relations of Taiwan and US. The reason of Taiwan and US gradually achieve a high degree of mutual trust today is that US administrative departments and the congress keeps showing friendly action to us, like several current senior official visits to Taiwan, several public announcements saying Taiwan is the important partner of security and economy for the US, publicly welcoming us to join TPP, publically affirming Taiwan's contribution to regional stability and the "East Peace Initiative", emphasize the Taiwan's importance of the "Rebalancing Asia" policy of the United States, Publicly reiterated that "Taiwan Relations Act" (TRA) and "six guarantees", the announced total sales for military achieved more than 18 billion US dollars and include Taiwan in to the "Visa Waiver Program". Above description shows the current relationship between Taiwan and the USA is very closed and friendly. It also easy to understand that why all agreed that at this stage, Taiwan-US relations is in the best condition over the past 35 years.

What are some points that could be improved?

**A:** According to the above description, Taiwan-US relations in recent years obtained considerable progress which achieves the best condition over the past 35 years. Both countries have close communication on lots of issues. Because of the smooth communication channels, economic and trade relations between Taiwan and the United States have become increasingly close. In 2014, Taiwan surpassed India and Saudi-Arabia, becoming a top ten trade partner of the USA. At the same time, the USA surpassed Japan, became the second big trade partner of Taiwan. In the future, economic trade of Taiwan and the USA still have space to strengthen, we hope the American Chamber of Commerce can play a more active role, and explain the importance of signing BIA and joining TPP for Taiwan to the USA to further consolidate the mutually beneficial bilateral economic and trade relations.

What are the areas they believe are really good?

**A:** Since President Ma's term, Taiwan and the USA maintain close contact on various issues, like security, economy and trade, education, technology, anti-terrorist, environment protection and prevention of trafficking, etc. The cooperation in various fields has seen visible progress.

After the US EPA McCartney (Gina McCarthy) visited Taiwan to witness the formal establishment of the EPA's "International Environmental Partnership Scheme", substantive partnerships on the international environmental issues with us have been built. Taiwan and the USA recently also have close contact and communication

on the issue of confronting the international Ebola outbreak and promotion of humanitarian aid of Middle East. Several of them already had some good results.

After the resumption of talk of "Trade and Investment Framework Agreement" (TIFA) in 2013, Taiwan and US had another meeting in Washington in 2014. Both countries thought this was a constructive discussion. They will have an investment working group and a technical trade barriers working group work together and interact in the future, and have continuous talks on the issue of BIA.

Interaction between senior officials from Taiwan and US is frequent. For example, Former Vice President Xiao had bilateral talks with US Secretary of State Kerry at the Asia-Pacific Economic Cooperation (APEC) Economic Leaders' Meeting in November. In addition, Chairman of Council of Agriculture of Executive Yuan, Chen Bao-ji, Chairman of Financial Supervisory Commission, Tseng Ming-Chung and Chairman of National Development Council, Kuan Chung-ming all led a delegation to visit the United States. On the other hand, the Deputy Assistant Minister of Commerce and the Principal Deputy Assistant Secretary of Bureau of Economic and Business Affairs have visited Taiwan.

Do you have any wishes or hopes?

In the future, we will still insist on our principle, "low key and no accidents", to have close communications with the USA, and consistently deepen bilateral cooperation and partnerships on various substantive international issues. Especially on the economy and trade aspect, we hope the US government can support us joining TPP's second negotiation. Also, having continuous interaction with us on the basis of the TIFA framework and signing a further contact, "Bilateral Investment Treaties" (BIA) to build more solid bilateral relations between Taiwan and the US.

#### **Ministry of Education, Taiwan February 24, 2015**

1. Can Taiwan open its doors to let prestigious international education institutions establish branch universities here and award degrees, to enhance cultural cooperation?

In accordance with the provisions of Articles 2 and 82 of the Private School Law, to establish a private educational institution of any kind and at all levels the legal person must apply to the appropriate supervisory authority to do so. Foreigners or legally approved foreign legal persons are permitted to set up private senior secondary schools and institutions of higher education in the Republic of China in accordance with the provisions of this law. Once they have permission from the Ministry of Education to register, they may recruit and teach students in Taiwan and confer degrees.

The Regulations Governing the Establishment of Private School Endowment Corporations and the Regulations Governing the Establishment, Update, and Suspension of Institutions of Higher Education and their Branches, Subsidiary Schools, Junior College Divisions, also Junior Colleges and their Vocational High School Divisions.

2. What is being done to attract more foreign students to study in Taiwan?

1) The Ministry of Education launched the Study-in-Taiwan Enhancement Program in 2011. The program has an annual budget of NT\$1 billion, and its goal is to develop Taiwan as a higher education center in Asia, and to increase the number of foreign students undertaking short-term study and language learning, a degree, or research in Taiwan to 100 thousand by 2016, and to 150 thousand by 2021. By 2014, the number of foreign students studying in Taiwan had already reached 92,685. This represents an increase of 16.25% compared to the figure for 2013. A survey conducted by FICHET in May, 2014 found the two main reasons that international students selected as making Taiwan the best destination for overseas study are: the academic resources and high quality academic system, and the scholarships offered.

2) The Study-in-Taiwan Enhancement Program focuses on two key approaches:

(1) Vigorously undertake creating friendly environments for overseas students studying in Taiwan:

1. Implementing subsidies in line with the On-site Visits to Universities and Colleges Offering Degrees, Modules, and/or Courses Fully Taught in English Plan: In the 2013 academic year, 52 of Taiwan's institutions of higher education had established 152 degrees, modules, or courses that are fully taught in English. Approximately half of these have been classed as "Recommended" or "Highly recommended".

2. Offering a wide range of scholarships for international students:

The Ministry of Education has been providing the following scholarships for international students for many years now: Taiwan Scholarships - to study for a degree; and Huayu Enrichment Scholarships - for learning Mandarin. The Ministry also subsidizes individual universities and colleges to provide MOE Common Scholarships, and provides the Outstanding Overseas Chinese Student Scholarships, Elite Overseas Chinese Student Scholarships, and grants to assist overseas Chinese students in financial need. It also subsidizes graduate schools with more than 5 overseas Chinese students to offer Outstanding Overseas Chinese Student Scholarships for Graduate Students. These are all designed to attract excellent international students to come to Taiwan for their studies.

(2) More vigorously marketing Taiwan's Higher Education

1. Enhancing Academic Resources and Quality

For many years the Ministry has allocated substantial funds for various projects such as the Aim for the Top University Project, the Teaching Excellence University Project, and the Model Technology University Project, designed to enhance the educational and academic quality of our universities and colleges.

## 2. Conducting overseas recruitment and promotions

Every year, the Ministry of Education subsidizes institutions, universities, and/or colleges to host Taiwan Higher Education Fairs in the US, Malaysia, Indonesia, Vietnam, Thailand, and India, to attract more international students to study in Taiwan.

## 3. Establishing overseas Taiwan Education Centers and holding bilateral educational forums

By 2014, the MOE had subsidized 7 universities to establish 9 overseas Taiwan Education Centers in 8 countries to better access the market for Chinese language learning, and to promote the advantages of studying in Taiwan.

### 3) Stronger measures to be implemented by the MOE in the future

(1) Combination learning programs - Combining short-term courses with professional internships: The Ministry is actively promoting the recently launched Taiwan Experience Education Program (TEEP) pilot. TEEP is designed to encourage prestigious universities in Taiwan to develop a diverse range of learning programs way to attract more international students. For example, programs that combine gaining Chinese language proficiency, with enterprise internships.

(2) Making high quality customized courses for Learning

Mandarin Chinese available to students

The Ministry launched its eight-year Mandarin Chinese Language Learning Export Plan in 2013. It will continue to allocate approximately 200 million NTD annually to support these efforts until 2020, vigorously ensuring the quality of Taiwan's Chinese language education resources, and raising Taiwan's international profile as an ideal destination where students can enjoy learning Mandarin Chinese.

3. Given the decreasing number of university and college students, why aren't universities and colleges offering more programs specifically designed for foreign students that are taught in English?

The Ministry of Education launched the MOE Subsidy Program for Universities and Colleges to Vigorously Undertake Offering Degrees, Modules, and/or Courses Fully Taught in English in 2011, to promote further internationalization within universities and colleges, and to encourage them to recruit higher numbers of foreign students and to target attracting outstanding foreign students. This will accelerate international cultural exchanges and increase the universities' international competitiveness. The MOE is also encouraging universities and colleges to create internationalized learning environments, and to set up and offer courses fully taught in English. Five campuses—Ming Chuan University, Tamkang University's Lanyang Campus, I-Shou University, Asia University, and the College of Management at Yuan Ze University—have established an International College or are now putting in place courses fully taught in English.

The findings regarding the degrees and the modules fully taught in English on university and college campuses are as follows:

1. On-site visits:

To understand the specific nature and the quality of courses and subjects being fully taught in English at individual universities and colleges, the Ministry of Education commissioned the Foundation of International Cooperation in Higher Education (FICHET) to conduct on-site visits of how these were being handled. These on-site visits began in 2011. The results of FICHET's rating are to be used to help the universities plan further improvements.

143 courses, at 52 universities, were evaluated between 2011 and 2013. , 81 of these modules were rated 'Recommended' and 47 were rated 'Highly recommended'. Details of each of these 128 courses, and others, are available for prospective international students' reference on the Study in Taiwan website (<http://www.studyintaiwan.org/programs.html>).

## 2. Subsidized Courses

The Ministry reviewed and approved subsidies of various degrees, modules, and/or courses that are fully taught in English at universities across Taiwan. The annual figures are summarized in the table below:

Annual MOE-Subsidized Programs or Courses Fully Taught in English

\* Figures are unavailable for 2013 because not all the scheduled on-site visits were completed.

The Ministry approved subsidies of 24 degrees, modules, and/or courses that were fully taught in English at 12 universities in 2011; 639 international students were among the 918 students who enrolled in them. In 2012, it subsidized 52 degrees, modules, and/or courses fully taught in English at 17 universities; 1,313 international students were among the 2,418 students who enrolled in them. Overall figures are unavailable for 2013 because it was not possible to complete all the scheduled on-site visits. In 2014, it subsidized 36 degrees, modules, and/or courses fully taught in English at 16 universities; 1,255 international students were among the 2,018 students who enrolled in them.

This subsidy program is using competitive funding to help achieve the goal of ensuring educational excellence, and to assist universities to establish international colleges and develop courses fully taught in English, to enhance the quality of the modules and special courses currently fully taught in English. At the same time, a further goal is to encourage the aspirations of other universities to follow their example.

4. Why is the number of students from Taiwan going to the USA to study decreasing?

In recent years, the numbers of public universities and private universities in Taiwan have both increased, and their capacity to undertake research has also significantly improved, so there are more options locally available for students wanting to pursue advanced studies. Studying abroad is no longer the only one.

Taiwan is facing a serious low birth-rate problem, and this is one of the factors that have led to a noticeable decline in the number of students who go overseas to study, in the U.S.A., and elsewhere.

The rising tuition fees in America's higher education system have increased the financial burdens for students. But state governments there are all injecting less funds into their higher education sector, and they now provide fewer scholarships than they did before. For these reasons, some students are now turning to countries in Europe such as France, or Germany, where universities have low tuition fees or are tuition-free, or Sweden, which subsidizes research costs, as their destination for pursuing their further education.

Taiwan has been experiencing an economic slowdown and the average affordability of Taiwanese families also decreases. Only wealthy families can comfortably afford to have their children study in the U.S.A. Students from other families are simply not in the position to consider studying in the U.S.A. unless they win one of the limited number of government scholarships or one offered by an American university.

## **KAOHSIUNG**

### **Education**

1. What is being done to attract more foreign students to study in Taiwan?

With regard to scholarship applications for international students attending colleges and pursue higher education in Kaohsiung City:

(1). In order to encourage international students to attend Kaohsiung colleges and higher education institutions, and promote internationalization in campuses, Kaohsiung City Government has organized "International Student Scholarships" where applications are accepted annually in May, students who qualify receive 3000 TWD per month, up to a total of 36,000 TWD in twelve months.

(2). In 2013, international students from Vietnam, Malaysia, Swaziland and eight other countries have obtained scholarships. (Deadline July 31st). All applications for 2014 were completed in May.

2. What steps or new safety measures is the city putting in place after the gas explosion? Are there any new infrastructure projects to repair/replace old pipes and infrastructure? If so can US companies bid on these projects?

After the explosion, the Kaohsiung City Government established the implementation of the municipal industrial pipeline security management, the establishment of Kaohsiung gas, oil and petrochemical pipeline asset system to acknowledge management, and urge the operators to implement independent inspections of the pipeline, strengthening disaster prevention and relief system bundle emergency zone defense mechanisms and to develop Kaohsiung City non-public industrial pipeline management regulations, strict demands on industry good pipeline monitoring, implementation of the pipeline inspection mechanisms, to ensure that the pipeline transportation is safe and secure. The pipeline facilities and equipment are governed under private property rights, therefore they are

responsible for the industry pipeline repairs / replacement of old pipeline equipment and related maintenance.

2. What are the city's 3 major economic objectives in the next 4 years? How do they plan to implement them?

Industrial and new urban economic layout is a key objective.

The severe gas explosion clearly shows that Kaohsiung is home to petrochemicals and heavy industry. While re-construction is ongoing, it is also the fourth anniversary of the Kaohsiung City and County merger. Kaohsiung City government proposes "Kaohsiung Transformation" as its priority. The goal is to transform Kaohsiung from a city of heavy industry, to city that is full of innovation, hospitable, safe and capable of looking after its residents.

Kaohsiung City Government again proposes "Kaohsiung transformation" as a core value of governance in shaking off the shadow of Kaohsiung being an industrial city, to ultimately achieve industrial innovation and a more livable environment.

The Port of Kaohsiung is the symbol of Kaohsiung's development. Since the 20<sup>th</sup> century, it has served distant fisheries, industries as a gate to the world due to its convenience. In recent decades, it has served Processing, Petrochemicals, Steel Industry clusters, laying down the foundations for economic development. However, this also brought forth problems like water and air pollution, as well a significant threat to public safety. Thus, the concept of "Transformation" has become the consensus reached by the people of Kaohsiung. In response to improving the standards of living, Kaohsiung City Government proposed the vision for a "Livable" and "Safe" city. But all this is dependent on how transformations will take place. To promote new economic development, the City Government's three major economic goals are as follows:

(1). Creative success, harbors and new economy

Kaohsiung Port's development began from Hamasen and progressed toward the south until 1975 when construction of the second port was complete. Cargo carrying capacity soared and Kaohsiung Port was once the World's third busiest port. But as the older port, which primarily served bulk transportation, went into decline, so did the idle warehouses. This was until the project for Multifunctional Commerce and Trade Park was implemented, which brought forth not only cargo, but large numbers of tourists to the revitalized area.

Large, beautiful cruise ships can now be seen here. Shops and quality dining locales populate The Pier-2 Art Center. The revitalized Port continues to prosper under the influence of major infrastructure projects such as the Park and Asia New Bay Area. In 5 years, with all the projects and developments, industries such as film, performing arts, music, digital and cultural creative industries, software development, MICE and eco-friendly energy shall act as major driving forces and transform Kaohsiung's economy.

Also, within a few years, the Nantze Export Processing Zone, known for semiconductor assembly and testing, has leased all of its available land. 276 businesses in information services and digital content development now occupy

Kaohsiung Software Technology Park. The Industrial Development Bureau also established the R7 Creative Hub at the Shihjia Recreation Center to promote Southern Taiwan's fashion industry.

Kaohsiung City Government will focus on digital content and provide investment incentives. In 2012, DAKUO "Digital Art Kaohsiung United Office" start-up market was founded on about 32000 sq. ft. of unused space on the third floor of Yancheng Template Public Retail Market to harness software developers. In just over a year, it has successfully attracted notable businesses, including 3D post-production house "The White Rabbit Entertainment", as well as game developers like "XPEC."

In 2013, the Guangfu Theater in Yancheng District was used to attract a combination of digital creative industry and food & beverage businesses. Together with The Pier-2 Art Center and DAKUO, Yancheng shall become a hub for cultural creative industries.

To help digital content developers find potential talents, the City Government is working with developers like Newegg, Soft-World, XPEC, Brogent, The White Rabbit Entertainment to organize digital industry job fairs where many businesses provide promising salaries and perks on par with that of the North, expecting to attract talents working abroad to return to Kaohsiung. The City Government is also carrying out the "Talent Reflux Program" and "Move to Kaohsiung Subsidy", encouraging talents to start businesses or provide aid with each eligible employee receiving up to 10,000 TWD per month. This helps young talent to work and raise families in Kaohsiung where housing is more reasonable while enjoying the high standard of living in Kaohsiung.

## (2). Tourism and Yachting Industry

Tourism is a tertiary industry, and it is also an important part of Kaohsiung's industry transformation. Urban tourism must also continue to push new envelopes in order to attract more people. After the merger, tourism expanded to practically all areas. New themes and points of interests are promoted each year, capturing the interests of many.

Since Kaohsiung City Government announced the development of the Cruise Ship Home Port in 2012, the number of cruise ships visiting Kaohsiung has steadily increased. It is expected that in 2014 there will be 50 cruise ships visiting Kaohsiung, bringing an estimated 100,000 tourists. Careful estimates indicate this will bring about 300 million TWD in commercial opportunities.

Yacht-manufacturing giants in Kaohsiung such as the Horizon Group have worked with Manstrong to invest in Kaohsiung's Argo Yacht Club. The Club provides yachting services and is working with the government and other industries to make the ocean a recreational facility. Currently, initial staff openings have been filled. Yacht Club Receptionists, Consultants, Stylists, Skippers (Captains at Sea) and crew members have been brought on board. This is something that hasn't been seen before in the labor market.

Kaohsiung is home to majestic landscapes and sea ports, an ideal location for tourism. Last year, the total number of tourists who stayed in Kaohsiung exceeded 6,910,000. Total of number of tourists who visited exceeded 30,000,000. It is estimated that this has generated over 40,000,000,000 (40 billion TWD) in commercial revenue. As projects in the Asia New Bay Area are nearing completion, together with the prospering Yachting and Cruise industry, the number of tourists accommodated continues to increase, bringing significant investment opportunities to the Food & Beverage, Hospitality, Recreation industries and shopping malls. The prospering Tourism industry is more than enough to ensure Kaohsiung a sustainable future.

### (3). How to Attract Investment and Bring Changes to Traditional Industries.

Taiwan's economy picked quickly from 1960 to 1970s. The Ten Major Construction Projects included Petrochemicals, Steel and Shipbuilding which brought forth massive employment and development to the Upper, Middle and Lower stream parts of the Petrochemical Industry. This is also made Kaohsiung the ideal location for surrounding populations to flock to. But due to constant changes brought forth by globalization, only industry reforms can ensure sustainable development. The Screw-Manufacturing industry is one of Taiwan's major exports and is also niche industry. As of 2013, Taiwan's export of screws reached 1,460,000 tons, valued at 3.84 billion USD, a historical feat. Manufacturers located in Gangshan and Luzhu comprises 70 percent of total exports alone.

The STMDIC (Southern Taiwan Medical Device Industry Cluster) Development Project, which took place in STSP Kaohsiung Science Park, has attracted 37 companies in medical device and biotech both domestic and abroad. Due to its increasing success, many screw manufacturers have successfully shifted to this field. HC Bio-S (Hung Chun) is one of numerous traditional metalworking businesses who have shifted to medical device. It is also the first manufacturer of artificial teeth in Taiwan. An opening ceremony of its new facility in Kaohsiung Science Park which produces its own product, the Ti-one101, took place in November, 2014. According to Kaohsiung Economic Development Bureau, medical device in Kaohsiung has increased in profit from 410 million TWD in 2009, to 1.54 billion TWD in 2013. 2014 projected estimates reach up to 1.65 billion TWD. This clearly indicates that Medical Device in Kaohsiung is developing significantly. As actions are being taken to influence higher value in the Metal Industry, in 2014, manufacturers such as Tension Steel Industries and German Automobile Fastener manufacturer HEWI has moved into Kaohsiung Science Park. Laser Processing company E&R Engineering, Chienwei Precision Technology and semiconductor supplier E-Sun Precision has formed an industry alliance to develop a better-structured Precision Industry cluster. This brings significant impacts to the industry, as well as more job opportunities.

After Kaohsiung became a special municipality, in order to meet manufacturer land use requirements, Kaohsiung City Government has provided investment

incentives, one-stop windows to ensure industry cluster development. While industry parks have been established in locations such as Daliao District, by the end of 2014, 6 privately-initiated industry zoning applications as well as 15 applications to using Non-Urban Land for facility expansion have been accepted. The City Government has provided support to assist businesses with development and operations. The total of developed land for industry use is 170.25 hectares. Approximately 2700 jobs have been created and production is valued at 43.56 billion TWD annually. It is hoped that this will encourage additional investment, allowing more businesses to establish and thrive in Kaohsiung.

Our five major industry areas in 2014 are as follows: Wholesale, Metalworking, Retail, Petrochemicals, and Electronics Component Manufacturing.

### **General Q&A with the Mayor**

1. What do you see as the key area for development in your city (county)?

To Ensure The Safety of Our Citizens.

The gas explosion caused the culvert boxes under Sanduo Rd., KaiXuan Rd. and Yisin Rd. to explode. Most of the surfaces collapsed as well. This disaster cost many civilian lives including firefighters. This reminded citizens of Kaohsiung the hazards posed by the city's heavy industries.

Kaohsiung plays a pivotal role in Taiwan's economy, but has paid a large price to alleviate the resulting pollution. The gas explosion has struck Kaohsiung deeply, forcing everyone to reflect on inadequate supervision and regulation of the Petrochemical Industry. Reforms and reinforces supervision shall be the City's top priority. A significant amount of progress in industry and environment policy reforms is to be achieved to ensure a safe future for Kaohsiung.

(1). Examine All Pipelines and Establish Regulations.

In response to concerns over petrochemical pipelines, the City aims to check all pipelines, clear overlooked areas, set regulations and pursue better alternatives to secure a better future for the welfare of its citizens. Firstly, the City Government will work all responsible units to check all culvert boxes. Should there be pipelines detected, all pipelines will be relocated within a set timeframe. Failure to comply will result in forced shutdown and relocation of targeted pipelines. On the other hand, due to lax enforcement of Petrochemical Industry regulations, pipeline networks are beyond chaotic with little or no information available as to who's responsible for each unit. The City Government shall work closely with all government units to compare and correct all pipeline data. All responsible parties will check respective pipelines and provide all data including location, pathways, the type(s) of contents transported, operation protocols, and responsive measures etc. Everything is to be reported to the City Government and made public. They will also enforce strict auditing regulations and make all information public to prevent potential risks. This is of utmost importance to ensure a safe future and give the city back to its residents.

(2). A Safer, More Livable City

On September 27<sup>th</sup>, 2014, during the evening of the 24<sup>th</sup> anniversary of the environmental movement opposing the CPC in Houjin, Mayor Chen Chu announced to citizens that the City Government will put in all efforts to relocate the Fifth Naphtha Cracking Plant (Wu Qing). After the gas explosion incident, the imminent danger posed by the Petrochemical Industries became just as significant. Wu Qing had no reason to remain and had to relocate. They must also promptly propose a solution to the pollution in the area and plans to shut down the facility. The location where facility is located may be considered for Cultural Creative Industry or Eco-Friendly Energy Industry use.

As for Petrochemical Industry, Mayor Chen met with Premier Jiang (Jiang Yihuah) and mentioned that the following must be achieved: CPC facility must shut down and relocate. Renda Industrial Park will be repurposed as promised. Loopholes in Petrochemical pipeline regulations will be tended to and all hazardous pipelines must leave Kaohsiung in set timeframe. Reforms are to be made to Kaohsiung's problematic public finance system. Petrochemical Industry headquarters must relocate down South. Responsibilities for parties involved in disaster events must be clearly defined. Equipment and training upgrades are to be made for frontline disaster relief workers. All Industrial Parks must organize disaster response teams in order to respond to all disaster related matters.

After the events of the most severe incident in the last half century, the City of Kaohsiung has demonstrated the utmost resilience and determination to make reforms to protect and secure a brighter future for its citizens.

2. In terms of foreign investment, which sector would bring the greatest benefits to your city?

(1). Invest in New Emerging Industries

Should there be foreign investment in Kaohsiung's emerging Digital Content Industry, whether by sole proprietorship or joint venture, it will be great beneficial. International brand names will convince other businesses to follow suit by critical mass. Should foreign and domestic businesses cooperate, it may help gain entry to more profitable international markets. This may also play a pivotal role in industry transformation and upgrades. Also, foreign investment not only increases output, but also provides more diverse work opportunities, which may help attract young professionals to return to Kaohsiung. This is more than enough to attract foreign investment and it bears great potential. Citizens of Kaohsiung will see the positive effects and more notable businesses will want to flock to Kaohsiung.

(2). Metalworking Industry Value-Added Investment

Kaohsiung is home to Taiwan's traditional manufacturing industries. It has significant experience in such field and it has formed a well-structured industry cluster. Industry upgrades and transformation shall be main focuses of Kaohsiung's economic development. The City Government is working to assist local metalworking businesses contact with other foreign and domestic businesses to exchange techniques, businesses opportunities and/or joint ventures. This is to

add further value to existing businesses by expanding into other fields such as: aerospace, robotics, precision instruments, medical devices (e.g.; Surgical Machinery) and so on. This will realize the goals of industry transformation, economic growth and creating job opportunities.

Metalworking has enjoyed decades of development in Kaohsiung. Businesses are capable of providing quality services, should they receive foreign investment, it is expected that everyone can reap enormous benefits, creating win-win scenarios.

(3). Attract High-Tech Manufacturing and Service (Tertiary) Industries.

In recent years, Kaohsiung has strived to increase competitiveness and improve standards of living and create an investment-friendly environment. To transform the city, we hope to attract High-Tech and Tourism Industries and create a sustainable environment. The steady growth of the Asia New Bay Area, together with High-Tech and Service Industries flocking here, shall create demand for legal, accounting and other mid-senior level personnel. This would improve the infrastructure of these businesses and attract other industries such as Tourism, Digital Content, Creative Culture, Smart Logistics and many other emerging industries. All this will attract the additional talents and capital, and establish a frontier for Kaohsiung's economic development.

3. What are the projects focusing on energy conservation; on adding renewable energy generation?

Taiwan lacks energy; and Kaohsiung is a city of heavy industries and rank first place in energy consumption and carbon emissions. Therefore, energy conservation and promoting solar power are important tasks for the City Government. Details are as follows:

(1). Promote Energy Conservation

A. Make amendments to the "Energy Conservation in Our Schools" project and ensure all City Government departments carry out their responsibilities.

B. Establish an "Energy Use Application" system, which ensures that all schools within jurisdiction the report data on electricity, water and fuel consumption. Data will be used to determine whether if the City is on track to energy conservation.

C. Kaohsiung has worked with the Energy Bureau (MOEA) and organized the "Summer Energy Conservation Program" in 2014 (June to September) where many municipalities competed to promote and carry out energy saving practices across businesses, schools, households etc. Kaohsiung achieved first place for 2014.

(2). Solar Power Program

In order to encourage application to setup solar powered equipment on residential roofs, as of July 14<sup>th</sup>, 2014, the City Government started accepting applications for installing equipment with capacity below 50 KW. Residents submit applications at our offices.

The number of accepted applications from 2010~2014 is numbered at 1620 (21.77% of all households in Taiwan). Total capacity is at 98,838.612KW (15%). Renewable energy equipment manufacturers (Solar Power/Power Companies) are numbered at 115. Growth rates stood at 94% (2012), 77% (2013), and 85% (2014)

respectively. Such growth indicates that many local businesses are investing heavily in solar power.

The City Government also created the “Green Finance Project” in 2013, providing financial assistance to registered energy service providers and residents who install solar-powered equipment. As of late 2014, we’ve accepted 134 applications and provided 96.43 million TWD in financial assistance.

4. What do you see as being the most challenging issues that need to be addressed in the immediate future?

Kaohsiung City is constantly challenged by the Petrochemical Industry

Being a city with a lengthy history of heavy industry, pollution, work incidents and protests are quite commonplace. Throughout Kaohsiung, in Houjin there’s the Wu Qin (CPC 5<sup>th</sup> Refinery) as well as Petrochemical facilities located in Renwu, Dashe, Linhai and Linyuan Districts as well. The CPC facility in Houjin is managed by the State-Owned Enterprise Commission, the other four are under direct jurisdiction of the Industrial Development Bureau. Kaohsiung is completely surrounded by Petrochemical facilities, pipelines containing fuel or raw materials pass through densely populated areas. This is beneficial for the development of the Petrochemical Industry but the residents are left to deal with pollution and other dangers. Such constant threats have long existed in Kaohsiung.

(1). Tackle the North-South Fiscal Imbalance. Kaohsiung Deserves Better

The Petrochemical Industry has posed a significant number of threats to public safety. This continues today. In 1978, there was the Cyanogen gas leak in Dashe District. From 1988~1989 there were the explosions at the facilities of CPC, CCPC, Asia Polymer, and Chemtura Taiwan. Waste waters from Formosa Plastics and Linyuan Industrial Park polluted the fields. In 1997 there was the explosion at ZhenXing Bridge in Cianjhen District. And then there’s the 2014 gas explosion which proved disastrous. All this has cost Kaohsiung near-insurmountable damage. And yet, many of these Petrochemical businesses are not headquartered here, but in Taipei. Such an unjust taxation system has allowed these businesses to operate in Kaohsiung while tax revenues go to the North in Taipei.

Take CPC for example, each year 43.1 billion TWD in tax dollars are paid to the Central Government while Kaohsiung received only 600 million. The Government gets paid while Kaohsiung is left to deal with the consequences. Though efforts have been made to make CPC relocate its headquarters to the South but much work is to be done. After Kaohsiung became a special municipality, the area of jurisdiction increased 18 times in scale, but available budget has steadily reduced each year. As of 2015, there is a discrepancy of 10.5 billion in allocated budget. Kaohsiung has played the leading role spearheading Taiwan’s economic development but is under constant threat from the pollution of the heavy industries. The Government must address this serious problem and remedy the situation immediately

(2). Industry Transformation

For decades, to rid Kaohsiung of the pollution from the Petrochemical Industry, many reforms have been made in terms of protecting the environment and industry transformation. In terms of environment protection, after considerable effort, the water quality of Love River, Chienchen River, Houjin River and Erren River have considerably improved. The shores have also been converted as tourism grounds for walks, cycling and low-impact transportation. This is one step further for Kaohsiung to become an eco-friendly city. The Government also created the premiere local living building autonomous regulations, promoting the ideal “Kaohsiung Cuo” (Home) as well as eco-friendly building and solar-powered roof projects. This has been instrumental in making Kaohsiung a resilient city. All this has helped to stimulate eco-friendly businesses’ development.

In terms of industry transformation, the City Government has pushed the “Asia New Bay Area” project as the foundation for industry reform. The first-completed Kaohsiung Exhibition Center has already been operational since April, 2014. This has marked the beginning for the MICE industry in Kaohsiung. The Kaohsiung Public Library has also been completed in November, 2014. Taiwan’s first light-rail transit will also be fully operational in 2015. Ongoing projects include the Maritime Cultural and Popular Music Center as well as the Kaohsiung Port Terminal. As projects are being completed in Asia New Bay Area, this will not only enhance Kaohsiung’s exposure on the World stage, but also elevate the city to Global City status and attract investors all over. The benefits include stimulating Kaohsiung’s MICE, Cultural Creative, Tourism as well as Software Development Industries’ development.

Also, the City Government is striving to promote new emerging industries thriving in Kaohsiung. Over 375,000,000 TWD in funds have been invested over the course of seven years to aid approximately 500 businesses, allowing SMEs to upgrade. Efforts have been made to push the film industry by establishing “Film Kaohsiung” Center to provide filming support, allowing “Hollywood Kaohsiung”. There’s also the Pier-2 Art Center where it harbors businesses in the Performing Arts, Design, Digital Creative industries. This encourages more talents to remain in Kaohsiung, sparking a new wave of innovation across Kaohsiung.

Despite the challenges presented by the gas explosion, Kaohsiung is ever more determined to build a robust economy on safety. The City will continue to institute reforms and upgrade industries to lift Kaohsiung out of its industrial past.

5. What do you want the world to know about your city?

Check out Asia New Bay Area, Kaohsiung’s New Face to the World

After Kaohsiung became a special municipality in late 2010, Kaohsiung proposed “Asia New Bay Area” in 2011. In four years, Kaohsiung’s Port has undergone transformation. Kaohsiung Exhibition Center had its grand opening in April, 2014 while the public library opened in November 13<sup>th</sup> of the same year. The light-rail transit system is still on schedule despite the gas explosion. It is expected that by the end of 2015 the coastline light rail will be completed and operational; closely

followed by completion of Maritime Cultural and Popular Music Center's first phase of construction. It will be located from wharfs 13 to 15. The Kaohsiung Port Terminal is scheduled to be completed in 2017. These large scale public infrastructure projects are all built from entries selected from international competition and abides with eco-friendly architecture concepts. Each of these high standard architecture designs has not only set a new benchmark for others, but also transformed the entire look of Kaohsiung Port. This will stimulate the development pace of the Multifunctional Commerce and Trade Park as well as adjacent land development, securing a bright future for Kaohsiung's development.

#### (1). Light-Rail Transit Network

On September, 2014, the long anticipated light rail trains have arrived in Kaohsiung. The sleek silhouette of the vehicle is like that of a beam of light, illuminating the beginning of a "Greener Kaohsiung". The coastal light rail connects the Asia New Bay Area with Kaohsiung Exhibition Center, the Public Library, marking a new beginning for Kaohsiung Port. The train itself was transported from Spain to Taiwan and began idle testing since last September at Station C2 (Located at Kaixuan 4<sup>th</sup> Rd. and Ruitian St.). Mobile testing will soon begin and folks will have the opportunity to see it travel around Kaixuan Rd. (Banchao Rd. to Zhongshan 3<sup>rd</sup> Rd.) When it is fully functional, there will be 9 new light rail trains passing along the rail, a fair combination of leisure and convenience without compromising the clear blue skies and beautiful skyline of Kaohsiung. The passenger cab utilizes a Low-floor design, and each train consists of 5 cars linked together. Total length is approximately 34m long, 2.65m wide with a capacity up to 250 people. The cabs can be accessed through connected walkways and uses "plug-type doors" which allows the train to maintain a consistent form. Each side has four exits and each door has clearance up to 1.3 m. Each doorway is on the same elevation as the platform gap, allowing passengers to quickly pass through. The keen design ensures a safe, user-friendly riding experience. The Circular Line (KMRT) is Asia's first light rail system to utilize overhead-line free design. Overall length spans over 22.1 KM with 36 stops, one maintenance facility.

#### (2). Kaohsiung Exhibition Center Opens New Horizons

The landmark building of "Asia New Bay Area" is the Kaohsiung Exhibition Center which opened its doors on April, 2014. The wave-like exterior is a feast for the eyes and the spacious interior reaches up to 27 meters high without beams. It is covered with over 16000 pieces of curtain-walls and is structured with elongated, umbrella-like steel structure to accentuate the feel of the building. It is the first in Taiwan to meet the space requirements of large machinery and boats. Throughout the exhibition center one can find convenience stores, eight restaurants and merchandise stores. It is still enjoyed by many during "off" seasons for its convenience. Singuang Park, located next to the exhibition center, attracts many also with its iconic "Bubble" structure centered in the pool. The surface area of the

exhibition center is about 4.5 hectares, and has two main pavilions which can house up to 1100 booths. The largest conference room can house up to 2000 people. The outdoor exhibition space can hold 400 booths. The 2014 Taiwan International Fastener Show, Boat Show and Tourism Expo have attracted several hundred thousand visitors alone. Conferences and expositions numbered over 40 which helped local hotels and shopping malls significantly.

Kaohsiung is working hard to promote MICE industry. The Kaohsiung Meeting & Event Promotion Office was created late August, 2013 as a one-stop service for such needs. The City Government has traveled to many overseas events and marketed Kaohsiung's MICE competitiveness to rest of the world. After the opening of the exhibition center, not only has the number of events increased, but many more organizers are pushing to make themselves seen. There are already many events and conferences currently being organized and discussed for 2015. This is helpful in attracting further international visitors, commercial and investment opportunities, making Kaohsiung one of the most popular MICE cities in Taiwan.

### (3). New Kaohsiung Public Library Opens New Grounds

The Kaohsiung Public Library opened during the autumn months, prepared to deliver an architecture sight-seeing experience combined with the pleasures of reading. Upon entry, one can see the Ground Floor's 7.5 M tall spacious open area. Six floors up, you will see large patio laid with trees for that lush green reading environment. The large spacious area is supported with only 4 huge cylindrical beam structures supporting the building. The beamless interior adds to the roomy area. Starting from the third floor located southwest there are two balconies on both sides with lawn rooted 5 meters deep, giving the reader the feel of being embraced by nature while enjoying large open space. At night, one can see the beautiful 85 Sky Tower facing the library, a scenic sight to behold.

The suspensions system method used, which is often seen used for suspension bridges, is the first of its kind. The unique architectural design has won the 2012 Golden Stone Architecture Award for design and prime choice. To coincide with the completion of the library, the second phase project for a cultural creative pavilion BOT (Build Operate Transfer) is about to take off. This is a first for BOT where a location not only serves reading, but also cultural creative purposes. The City Government expects that by doing so this will generate a critical mass effect as the library is located close to the Kaohsiung Exhibition Center.

Other than the architectural achievement, the books and the readers are main features of the building. To raise funds for reading materials, the City Government acted according to the Charity Fundraising Act to encourage the public to donate funds for books. As of September, 2014, over 4000 citizens have gotten involved, raising up to 500 million TWD in funds. Perhaps that one book you're looking for is made available because of another person's act of generosity. The completion of the library has preserved Kaohsiung's intellectual and cultural history. But in order to balance the resources between the City and rural areas, the City Government is

investing heavily into promoting reading. Each year the Public Library is closer to achieving its goal. Currently there are completed branches located in Nanzaikeng, Zuoxin, Xiaogang, Renwu-Chengguan, Linyuan (Second Branch), Jhongjhuang, Jhonglun, Caoya, Heti as well as Dadong Arts Library. Next year, the Namasia and Meinong Branches will be completed, setting the foundation for a bolstering reading culture in Kaohsiung.

#### (4). Maritime Cultural and Popular Music Center Takes First Step for Music Creative Scene

Kaohsiung's heavy industries once helped realize the "Taiwan Miracle", but left pollution in its wake as the price. In recent years non-stop planning for industry transformation turned things around for Kaohsiung. From 2009 to 2012, the Popular Music Industry increased by 75.47%, maintaining steady growth of 20% annually. Digital Music has grown 88.94% over the course of four years, an average of 25% each year. This clearly shows that popular music has infinite potential. With infrastructural projects in MICE, Performing Arts, Cultural Creative, Light-Rail Transportation coming together, one of Asia New Bay Area's flagship project "Maritime Cultural and Popular Music Center" will be Kaohsiung's new base for Cultural Creative Industry development.

The Maritime Cultural and Popular Music Center is a large scale project stretching across Wharf 11-15. The area covered is approximately 11.43 hectares, including Yancheng and Lingya District's coastal region. Oceanic elements include whales, dolphins, and coral reefs. The building will include large indoor and outdoor performing areas. Exhibition centers for Popular Music Industry communities, Cultural Creative, and Maritime Culture. First phase construction began at wharf 13-15 in March, 2014. Features include 6 small auditoria and the appearance resembles that of a whale. Capacity allows 200 to 1000 persons. Future uses considered include fusion cuisine restaurants, Indie and Popular Music performance shows etc. The "whaleback" can also double as a vantage point. Construction is scheduled to be completed by late 2015.

Second phase covers wharf 11, 12 and exits Love River to Glory Pier. Besides providing for maritime cultural and cultural creative industry purposes, it also includes an auditorium capable of housing 3500 to 6000 seats. The exterior can seat 12000 persons and provides enough room for Popular Music exhibitions. Currently project bidding information is being made public for feedback and is scheduled for completion in 2016. This will serve as a platform for Popular Music in Asia-Pacific as well as a cultural exchange platform and Performing Arts center.

#### (5). Kaohsiung Port Terminal Now Home to International Cruise Ships

Kaohsiung Port is located at the Southeast and Northwest Hub, and is also the area where flights from Europe, Asia, and the Americas pass through. The airport is also within short distances. The Sea and Air advantage is ideal for Cruise Industry to develop here. After the decision was made by Mayor Chen, in 2014 at least 50 cruise ships have docked at Kaohsiung Port. The number of voyages has doubled since compared to 2013. In October, 2014, the World's largest Cruise Ship

Company's "Sun Princess" made its maiden voyage at Kaohsiung Port. "Sapphire Princess" also made its first visit to Kaohsiung. It is estimated that the number of people coming through Kaohsiung Port will reach 100,000 driving the Tourism Industry here.

In response to the flourishing Cruise Industry in Asia, the Taiwan International Ports Corporation (Kaohsiung Port) has invested 4.5 billion TWD to build the Kaohsiung Port Terminal which began last year. This building comprises of two basement floors, 15 floors. Designed by American Architect Jesse Reiser from New York and Fei & Cheng Associates, the building resembles a ship with tall smokestacks. The wharfs 17-21 are 726M in length and 12.5M in depth, allowing International Cruise ships, ferries, to enjoy the spacious docks. The quality customs services will leave an excellent impression for visitors. The Port Terminal is scheduled to be completed June, 2017. This the first time TIPC has used made use of zone area land since it became privatized. This is a response to the transformation of Kaohsiung Port to Asia New Bay Area.

6. Please state your opinion regarding Free Economic Pilot Zone setting up in your region?

First phase industries in the Free Economic Pilot Zone include Intelligent Logistics, Healthcare, Value-Added Agriculture, Financial Service, and Innovative Education. The location contains 6 ports, one airfield along with one agricultural biotechnology park. With virtual financial concept and open participation of businesses. The Zone should give priority to restricted high-end services such as Finance, Healthcare, Education, Leisure and Entertainment etc. This helps to attract upper class professionals back to Kaohsiung and allow industry transformation to take off. We will also allow small zones to take the initiative in order to assess the impacts.

Designated zones include Asia New Bay Area and auxiliary Multi-Functional Trade Park zoning applications. Together with Government-designated Free Trade Zone at Kaohsiung Port and Pingtung Agricultural Biotechnology Park will form two distinct zones: The first spearheads high-end service industries to attract development opportunities for financial services (Actual Zones), as well as tourism. We also aim to attract business headquarters to establish presence in the area. The latter shall lead Intelligent Logistics with MIT (Made in Taiwan) manufacturing businesses as its main priority. This will benefit the rest of Kaohsiung. A set regulations based on local feedback from businesses in the Pilot Zone will be proposed with help from officials representing the City Government. The proposal is currently being evaluated at the Legislative Yuan and further communication will be established between the National Development Council and other units. We will also continue to set up meetings and talks with businesses leaders to fully understand their needs and make proper planning decisions.

## PINGTUNG

### Economy

Pingtung County is facing not only the threats passed by global warming but also competition from global cities. There is also the imbalance in development between the North and South as well as competition from the other six special municipalities. There is also the problem of an aging population that needs to be addressed. Pingtung County must make use of its advantages as well as be innovative in marketing its strong points to the world in order to create opportunities.

We hereby set up three major objectives for industrial and economic development: **Agricultural World Trade, Tourism Capital, and Great Livable Community.**

To make Pingtung the place to live, we hereby propose three strategies:

Firstly: "Regional Cooperation". Pingtung must work together with Tainan and Kaohsiung to tackle issues such as public health, public transportation as well joint disaster prevention. We must consolidate our resources and work to attract investors and market our strong points. This is to promote development of our industry clusters. We must then assemble a team of international professionals to partake in development projects. This is to help market our tourism industry and diverse agricultural products by expanding them so that they have a significant presence across all markets.

Secondly: "Public and Private Sector Cooperation". Pingtung County Government must make use of local community building. We will have dedicated offices in each town with community centers helping families to look after of the elderly; provide our senior citizens with a friendly social environment. We also must work with NGOs and provide support to non-profit kindergartens, in order to help every child in need and alleviate the burdens shared by their parents. The County Government must also harness the strengths of all private organizations to promote Pingtung County's agriculture and tourism industry. We will provide assistance to every corner and build communities bustling with culture, compassion and support from social services and thriving SME businesses.

Thirdly, "City Marketing". This is an era of story marketing. Pingtung County Government shall employ the methods of innovative and professional management to show to the world what the County has to offer. We will convince others to collaborate and create additional opportunities for international marketing so as to enhance Pingtung's visibility in the world.

Pingtung County Government's Three Major Development Strategies:

#### **1. Sustainable Environment – An Eco-friendly Pingtung**

- (1) Restore all river systems.
- (2) Revamp disaster prevention, early alert and evacuation systems.
- (3) Mandate clear urban development strategy.
- (4) Promote green energy to reduce environmental impacts.

(5) Form an eco-friendly traffic system.

## **2. Diverse Industrial Development – An Innovative Pingtung**

(1) Develop unique and advantageous industries.

(2) Promote agriculture biotechnology and innovative industries.

(3) Sustainable development of rural townships.

(4) Plan theme-structured travel packages to expand benefits of tourism.

(5) Branding of agriculture and aquaculture products.

(6) Establish the I-Center platform to promote our industries.

## **3. A Hospitable Pingtung – The Place to Be.**

(1) Promote education and culture.

(2) Establish a comprehensive healthcare system

(3) Build a supportive social services system.

(4) Build low-emissions demonstration zones

### **Agricultural World Trade**

“Safe Agriculture”, “Happy Farmers” and “Scenic Rural Townships” are Pingtung County’s agriculture development vision. Sustainable development is our core value. We hope that Taiwan and the rest of the world can enjoy our safe, high quality agricultural products. This is what we call “Safe Agriculture”. We want to help our hard working farmers increase revenue; enjoy higher standards of living and a brighter future for their children. These are the basic requirements for “Happy Farmers”. As the income gap widens, so is the gap between rural townships and cities. To protect Pingtung’s agriculture and environment so that we can safeguard our farmlands; allowing future generations to thrive on our soil is what we hope to achieve.

### **I. Build safe and secure farming environments.**

(1). Provide support for farmers to develop organic and non-toxic agriculture.

(2). Encourage schools to use locally-grown organic foods.

### **II. Establish a platform to promote our agricultural products. We’ll brand it “Pingtung’s Finest”.**

(1) Establish a platform to facilitate information exchange on the County’s agricultural products as well as an early warning system for surplus production so as to maintain price stability. Work with testing and labeling systems and build a platform to facilitate direct transactions between consumers and farmers.

(2) Work with farmers in planning and cultivation. Develop diverse processing in order to increase revenue.

(3) Expand export markets for Pingtung’s agricultural products; help farmers and food processing businesses attain certification worldwide, such as Halal food certification, as so to increase exports to Japan, Southeast Asia, China, Muslim states as well as the EU and Americas.

### **III. Combine recreational tourism and cultural creative industries so as to push for greater use of farmlands and to promote tropical recreational agriculture.**

**IV. Promote Chinese medicinal herbs suitable for cultivation in Pingtung so as to add greater output value to our farmlands.**

**V. Revive fallow lands and attract young farmers.**

Utilize County Government's microfinance resources and provide them to young farmers. This will encourage our youth to return and work in primary, secondary and tertiary agriculture in Pingtung.

**VI. Promote "Mu Jin" Project and Develop the Livestock Industry**

- (1) Push for traceable livestock products and ensure consumers' access to safe, quality food.
- (2) Designate zones for centralized processing and make use of technology for production of livestock by-products. We will encourage farmers to use micro-organic fertilizers and also establish bio gas plants. This not will only steadily solve energy problems, but also kick start "Clean Livestock Farms". Farmers will have cleaner and more efficient environments, therefore increasing the competitiveness of Pingtung's eco-friendly livestock industry.

**VII. Protect the marine environment, safeguard coastal fisheries, and ensure the fishing industry a sustainable future.**

**VIII. Turn Pingtung into a fish fry supplier (including aquarium fish) in the Asia-Pacific region.**

**IX: Utilize Pingtung County's research institutes and technology to establish a Farmer's Research Institute.**

**X. Cooperation between public and private sectors to provide sufficient funds for agricultural development.**

We will invest the funds in order to encourage farmers to upgrade applied technology, promote innovative marketing as well as to encourage young farmers who have completed their training at the Farmer's Research Institute to work in primary, secondary and tertiary agriculture. We will also invest in R&D to develop diverse agricultural processing and to improve packaging and marketing, so as to enhance market visibility and stimulate sales volume.

**Pingtung: Tourism Capital**

Faced with increasingly competitive tourism industries everywhere, Pingtung has a significant amount of features, including diverse ecosystems, cultures, and agricultural products, thus giving us many great advantages for developing tourism. Pingtung County will consolidate the resources of tourism-related industries and promote them through efficient software and hardware infrastructure projects. The synergistic effects will transform Pingtung into the international tourism city of the Tropics.

**I. Transform every area into notable content-rich tourist destination.**

**II. Push to consolidate the assets of all tourism-related industries so as to improve the overall quality of Pingtung's tourism industry.**

- i. Encourage tourism-related sectors to form strategic alliances, including food & beverage, lodging, leisure, transportation, agriculture products,

souvenir-related businesses, and travel agencies. Consolidate all available resources to boost competitiveness.

- ii. Provide training of employees to increase quality and efficiency.
- iii. Organize business matching fairs and encourage cross-sector cooperation and exchange.
- iv. Provide incentives to willing investors.

**III. Market Pingtung's tourism industry to ensure consistent development of its communities.**

1. Encourage rural townships to work together to promote our unique rural tourist destinations in order to strengthen competitiveness. This will help reduce the gap between urban-rural communities.
2. Examine and utilize all idle land assets to achieve County-wide tourism development. We will plan to put the assets to better use to create new business opportunities and use all assets efficiently to bolster our tourism.
3. Help promote all unique products offered from our communities and businesses.

**IV. Strengthen quality of travel agencies to ensure safe, comfortable travelling experiences.**

**V. Strengthen regional cooperation and expand marketing both in Taiwan and abroad in order to increase tourism competitiveness.**

**VI. Promote our popular souvenirs, and market Pingtung's culture to all.**

**VII. Provide support for the sports tourism sector in Pingtung**

**VIII. Reorganize all transportation communications networks, services and facilities**

**IX. Develop a maritime highway system (the "blue highways"). We will spare no effort to complete construction of harbors to serve both aquaculture and tourism purposes as well provide passenger cargo boat transportation services.**

**X. Transportation**

Our transportation policies shall gear towards "Land, Sea, Air". We will construct Pingtung's public transportation network including railways and highways with bus routes drawn to fulfill people's needs across Pingtung. We will also have a bicycle route network serving community transportation. This will complement our revamped public transportation policies to better serve Pingtung's land transportation.

**Safe, Livable Communities – Development of Healthcare Service Industry**

- (1). We will utilize every available vocational training resource so that our youth and other interested locals can be trained professionals, creating employment opportunities.
- (2). Combine cultural service, travel, green energy, community healthcare service, eco-friendly service, and community development to promote "Learning by

*Walking*” for senior citizens. This will create business opportunities and stimulate local industries.

(3). Build parks in Chaozhou, Sinpi and Wanluan townships. By combining forest resources and Da Chaozhou artificial pond project with smart technology, healthcare services and recreational tourism, Pingtung is the new paradigm of livable communities.

General (County Magistrate)

1. The three above-mentioned sectors (tourism, agriculture, and healthcare service) are active and intertwined. They are all vital to Pingtung County’s development.

2. Smart growth management for townships and communities

3. All departments of the County Government will carry out their objectives based on the values of humanism, sustainability and good governance.

4. Agriculture, Tourism and Healthcare Service Sectors

5. Pingtung County Government is promoting the “Guangcai Wetland Smart Microgrid” project. Within this area, all power sources shall be primarily renewable energy, including solar (photovoltaic) PV system, wind, hydrogen, and biodiesel. This is Taiwan’s first smart microgrid system operating in communities. This will not only reduce energy wasted by latency between power stations and it’s also equipped with “Blackout Start” and “Islanding” control functions. The stationary process that takes place when a microgrid is connected with islanding units allows uninterrupted supply of electricity. Solar PV units will be decorated to also serve as recreational and educational facilities promoting the importance of clean energy and environmental protection.

The microgrid system built by Pingtung County Government is Taiwan’s first operational unit and is equipped with power generation forecasting, demand response and energy adjustment functions; and we already have the foundation in terms of software, hardware as well as communication to run it. The County Government is capable of completing construction efficiently. This microgrid system can also serve as an example for other municipalities and counties. It can also quickly proceed into the test-run phase so that its operational status can be understood as well as allowing adjustments and improvements to be made. This can serve as a fine example for other “smart development” cities and other areas.

Pingtung County Government’s plans for future development are as follows:

- (1) Plan and establish a microgrid and internet of things (IOT) system test run zone providing manufacturers of energy-saving gauges, energy storage systems, system integration, and value-added IT communication service developers to run product tests. This will strengthen R&D technology and our global competitiveness.
- (2) Tackling natural disasters: Damage caused by land subsidence in Pingtung’s coastal regions and Typhoon Morakot is severe. Therefore, in times of distress, microgrid systems can supply emergency backup power so that communications and disaster relief efforts can be carried out. Renewable energy will expand so

that when Islanding function is activated in times of distress, it's more efficient and eco-friendly.

- (3) In terms of use towards state-owned land, the energy control center can combine geo-mapping systems so that it may efficiently control networks in these areas. Through estimates of smart grids and other energy monitoring devices, we can evaluate the depletion of aquifers and alleviate land subsidence problems. Polluted, unsuitable lands can be used for solar PV systems.

6. Every nation is focusing on renewable energy as well as sparing no effort to promote the "Green New Deal" in order to combat energy shortages and severe impacts brought forth by climate change. Since Pingtung started to push for policies such as "turning fields into solar farms", it has also shaped a new economy based on industrial-agricultural coexistence. By connecting diverse industries with tourism, it has contributed to Pingtung having Taiwan's sole photovoltaic recreational area which serves areas severely impacted by Typhoon Morakot as a new tourist destination.

The development of green energy sector lies in innovation and integration. We shall continue to push for green energy development in Pingtung. We shall strive to gain resources from the central government with cross-boundary integration policies. "Green energy" shall generate "green wealth" by promoting the development of renewable energy and sustainable industries. Pingtung shall become Taiwan's green energy powerhouse, creating employment opportunities in its local, diverse eco-friendly industries.

#### **A. Build a new-energy vehicle industry supply chain**

a. Establish and attract investment for Liukuaiquo Green Energy Industrial Park. We will also assist the phase-two expansion of the Pingtung Export Processing Zone, to allow the new-energy vehicle (NEV) supply chain (manufacturers of diesel, hybrid vehicles as well as assembly plants) to thrive in Pingtung.

b. Encourage energy, automobile, and metal processing sectors to establish their R&D centers and incubators in Pingtung or engage in cooperation to stimulate industrial development.

#### **B. Secure technical resources from the central government to build Pingtung as the green energy hub of Southern Taiwan and establish a complete industry chain, so as to create jobs in the green sectors.**

a. Promote Pingtung's Export Processing Zone to become Taiwan's most important solar power technology industry cluster.

b. Provide space for R&D and industry-university research institute cooperation.

c. Encourage renewable energy businesses to operate in Pingtung.

d. Solar Power Applications:

(1) Provide incentives to industries as well as households to set up independent PV or wind-powered units. It is self-sufficient and not only reduces carbon footprint, but also helps to reduce cost, marking the development of a green economy.

(2) Encourage the installation of PV panels in government office buildings in Pingtung.

(3) Encourage the private sectors to invest in building eco-friendly photovoltaic communities.

C. Project “*Mu Jin*”

a. Use livestock refuse to fuel biogas generators. This can cut down production cost and reduce pollution through self-sufficiency. Extra electricity generated can also be sold for additional income.

b. Carbonized crop wastes can be reused as fertilizers.

D. Promote aqua solar farms in areas with severe land subsidence or restricted zones (co-development of renewable energy, tourism, education, agriculture, and recreation sectors). Promote the cultivation of crops for bio fuel. This is to develop a multitude of renewable energy and suppress dust pollution, promoting efficient use of lands.

E. Seek resources from the central government for installation of smart metering systems.

a. Utilize ICT technology to integrate advanced power generation and storage technologies. We shall also seek resources from the central government for the installation of smart grid systems in both industries and households. This will allow the use of smart grid technology to steadily achieve the goals of energy self-sufficiency, smart management of resources.

b. Take advantage of the electricity generated from smart grid systems to build a smart plant factory.

**Focus on environmental sustainability and promote Renewable Energy Act and Geology Act**

a. Work with former Magistrate to promote the project of “turning fields and fish farms into solar farms”.

b. Usher in a Renewable Energy Development Act to lead Taiwan towards an energy self-sufficient and eco-friendly future.

c. Push for a Geology Act to regulate future planning and use of state-owned lands as well as safeguard people’s property rights.

**Protect Women, Working Class and Disabled Persons**

a. Include “non-cohabiting family members” into the scope of limited inheritance so that women can be protected from discrimination.

b. Adjust to increase the following tax benefits: Personal income tax standard deduction as well as special deductions for work income, disabled persons and tuitions.

- c. Make amendments to the Social Assistance Act so that applications won't be affected by time post-household registration. We will also provide emergency financial aid to qualified households up to 300,000 TWD.

### **Foster Development of Rural Townships**

To strengthen Taiwan's agriculture, we must carry out product traceability systems and assist farmers and fishermen by subsidizing their equipment or facilities. This is to help them promote international branding and establish reputation. We will also continue discussion of funds necessary to provide subsidies to human resources in order to support eligible youths.

### **Promote Industrial Development**

1. Provide aid in times of natural disasters and/or international headwinds.
2. Provide guidance and support to businesses transformation and protection of intellectual property rights.
3. Provide incentives for businesses to train talents; provide incentives to attract investment.
4. Establish angel funding to encourage venture capital and provide tax incentives.

Talents and technologies are instrumental to a business' growth. They are also key factors to industry innovation and revitalization. Therefore, we should create policies encouraging businesses to invest in R&D and training of professionals. Branding should be rewarded as well.

In order to encourage Taiwanese businesses to stay and establish global operations centers in Taiwan, we propose preferential treatment and incentives to businesses willing to setup headquarters as well as logistics and distribution centers here.

### **8. Fiscal Policy**

9. Taiwan's most unique ethnic cultures are located in Pingtung (including indigenous peoples/aborigines, tropic villages, and Taiwan's largest Hakka settlements). Pingtung is also home to the most ideal nautical and aerial activity zones during winter, and of course, home to the nation's very best tropical fruits.

**TAINAN** – for the second year in a row, Tainan has sent us the most comprehensive report on their activities and plans for the future.

### **Education**

1. What is being done to attract more foreign students to study in Taiwan?

The Minister of Education provides scholarships for foreign students.

Some Universities have “Mandarin Chinese Training Center” for foreign students to learn Chinese, such as Chengkung University, NTNU, and NKNU.

Some universities offer programs for International students, such as NTNU and I-Shou University.

As for K12 education, Tainan City Government promotes International Exchange Programs to encourage schools to have overseas sister schools.

2. Why is the number of students going to the USA to study from Taiwan decreasing?

It’s difficult for Taiwanese students to apply for scholarship from American Universities.

Taiwan has sufficient universities for students to study. Now, Taiwan has 167 universities and colleges.

To have overseas degrees doesn’t guarantee good jobs in Taiwan.

### **Economy**

1. What are the cities 3 major economic objectives in the next 4 years? How do they plan to implement them?

#### **Bureau of Economic Development**

- 1.1 Three major economic goals of City Government in the future:

- 1.1.1 Plan and invest in industrial parks to develop “sunshine electric” town.

The city government will actively promote the development plans for Shinji Industrial Park and Chiku Technological Industrial Park in the future.

To develop the economy and take environmental protections into account at the same time, the city government will build Shinji Industrial Park to be the first industrial park in the country with zero emission of waste water, in order to create three-win, economy, employment, and environmental protection, and will drive the economic developments of the adjacent areas and increase job opportunities at local. At this moment, once the development and the land acquisition plans are approved and issued by Ministry of Interior, the land acquisitions can proceed for Shinji Industrial Park. Additionally, the committed developer for planning and designing the park is also under selection. It is expected to conduct the sales of lands at the end of this year. The sales of the lands in this industrial park will be “sold after lease” to minimize idle lands in the industrial park, as well as speculation by vendors. In addition, once the Department of Land Administration of Ministry of Interior completes the review of the report for the public welfare and necessity of land acquisition, Chiku Technological Industrial Park can be successfully scheduled in this year. It is expected to conduct work related to land acquisitions to provide sufficient

industrial lands in coastal areas, support local industries, and consult unregistered factories.

Tainan City Government is the first to have industrial areas developed by the local government; meanwhile, it is the first case in the country where an industrial park is funded by a development management fund for local industrial parks. The industrial park is funded by a self-liquidating fund that budgets "Development Management Fund for Industrial Park", and the development is committed to private funding. For the developments of Shinji and Chiku industrial parks in the future, the city government will follow the successful experiences in the developments of industrial parks in the past to have the advantages of committing public and private sectors for developments. The development funds for application, establishment, planning, developing, sales and lease, and management funding will be raised by the committed public and private sectors. In addition, the management fund for the industrial park development is self-liquidating. The government needs not to budget public budgets for development. This greatly reduces the financial burdens and pressures. The development mode will be simultaneously implement the construction of infrastructure and the sales of land, so that the vendors can simultaneously construct the factories and shorten the schedule for constructing factories, in order to seek the market opportunities.

The city will actively promote the development of Shinji Industrial Park and Chiku Technological Industrial Park to construct quality investment environments and drive the power of economic growth and prosperity in Great Tainan. After the development of Shinji Industrial Park is completed, it is estimated to create revenues of 38 billion dollars and 9,935 job opportunities. After the development of Chiku Technological Industrial Park is completed, it is estimated to create revenues of 26 billion dollars and 10,000 job opportunities. The above industrial parks will be able to provide the lands for factories of about 154.25 hectares in the future.

1.1.2 Activate economy in Great Tainan and improve commercial kinetics, which includes:

- (1) Counsel shopping districts for continuous growth and take advantage of shopping districts attracting customers.
- (2) Promote the selection of a hundred good shops and improve the service quality of shops.
- (3) Implement shopping festivals and commercial exhibitions and integrate marketing to activate business opportunities.
- (4) Apply commercial technologies and introduce innovative operational modes.

1.1.3 Introduce private funds to stimulate the economy and plan an exhibition center.

It is expected to drive the economic growth and provide excellent living quality to citizens, as well as promoting industrial competitiveness, further pursuing sustainable developments.

1.2 Tainan City is well known as a cultural capital of Taiwan. In the next four years, it is expected to be developed as a modernized, low carbon city, technological new town, and sightseeing paradise. The ways to achieve the goals are listed as following:

#### 1.2.1 Build a low carbon city.

We endeavor to build a city in green culture by utilizing the advantage of long sunshine hours. The first solar power city in Taiwan is built in Tainan Scientific Park. We propose “Tainan City Solar Power City Plan”, such as solar power roofs, solar powered public facilities, green factories, and so on. We have 3 demands; industries of low energy consumption, low pollution, and low water consumption, as our industrial policies to specifically attract the investments required.

#### 1.2.2 Build technological new town:

Tainan has obvious aggregations for metal manufacturing, mechanical industries, textile industries, automobile part industries, and food manufacturing. It has its advantages for developments. In the future, Tainan will further develop six major industries, including green energy, biotechnology, medical tourism, fashion and vogue, exquisite agriculture, and cultural innovation, to make Tainan City become a comprehensive technology new city.

##### (1) Development of new industries

- a. “Industrial Expo” Promotion Plan
- b. “Tainan City Industrial Development and Invention Exhibition Award Matching” Promotion Plan
- c. “Tainan City New Industries and Advantageous Industries Business Conference” Promotion Plan

##### (2) Counsel traditional industries to be upgraded and transformed

- a. Tainan City Local Industries Innovation and R&D Plan
- b. Tainan City Sightseeing Factory Promotion Plan
- c. Tainan SME Service Team Execution Plan
- d. Local Industry Development Plan

##### (3) Build a Sightseeing Paradise

Tainan is the ancient cultural capital of Taiwan. Owing to deep cultural resources, there are up to 132 historical sites, leading Taiwan. Due to the convenient traffic in the districts, 12 million tourists are attracted to visit every year. In the future, we will develop toward three major aspects; promoting industrial service quality, enhancing sightseeing tour marketing, and creating an excellent tour environment. The existing resorts and historical sites will be optimized to combine sightseeing spots and local cuisines and build a unique local commercial circle at each area, making Tainan City a charming township and a paradise for tourists.

### **Bureau of Tourism**

Tainan City Government invites the private sector to invest in public construction for the purpose of using private capital, creativity and business management in public construction and management. Tainan City government also improves the efficiency in public construction. To cope with international trends, the Tourism Bureau plans BOT projects for Tainan Canal, Jiangjun Fishing Harbor and Hu-Tou Pei Youth Activity Center according to laws governing encouragement of private investment in public construction. The above three investment plans for private investment are in view of combining political authority and private capital, creativity and efficiency. The public sector and private investors plan to construct and manage public construction to help the government, enterprises and the citizens as a way of encouraging private investment and operation.

### **Bureau of Agriculture**

Agricultural economic goals of Tainan are for enhanced agricultural output, improving agricultural output that will improve the income of farmers.

Tainan City Government continued to promote the flagship plan of new agriculture, new countryside and the new farmer that make agricultural structure of Tainan to sustainable development, with results shown in agricultural output increases.

### General (Mayor)

1. Is there one particular project for 2015 that you feel is the most important?

### **Research, Development, and Evaluation Committee**

1.1 Open government: the concept of "Open Government" is one of the four main principles of Tainan City Government's administration. Under the three principles: "openness", "participation and cooperation", "openness of data, service, and decision", these three dimensions are as well included. "Open Government" is an essential and indispensable policy that should be enforced without fail. Through Transparency and Participation, we are hoping to make Accountability and Efficiency come into full optimization.

1.1.1 Openness of Data: In the process of development of democracy, people found that their desire for knowledge could no longer be met by government. Therefore, they started to find their own ways. The advance of technology, the interaction and feedback of social networking and the virtual world has unfolded to become a boundless and infinite vision. However, the information provided by government entities alone cannot meet the needs and runs the risk of becoming spam. It is essential to make this massive amount of data for machine easily accessible via the Internet. This is the first step for "Open Government" - Openness of Data.

To meet this trend, we have already undertaken to launch "the Platform of Openness of Data" in 2013 and arranged "Hei Ke Song Contest" which enables creativity, innovation, value, and application to be put into practice. What's better, the "Tainan century historical map" has created a platform named "timemap", which have met varied and disparate demands. On the basis of this, we have opened the platform

officially and so far 188 data-sets have been collected and compiled, and is still increasing. We ardently welcome all online friends to join us and make government supervised/people circulated data and resources a part of life.

1.1.2 Open service: In the past four years, smart phones have gotten progressively more popular, and Tainan City government has enhanced the quality of public service for this media. In order to be more efficient, Tainan City Government has developed numerous apps, including instantaneous bus tracking service, flood tracking service, Tainan travel information, road reconstruction information etc. These apps are the second element of Tainan open government. The system developed by Tainan city government reporting road reconstruction has collaborated with people's feedback and upload functionality. Besides, the RDEC in Tainan city government will transform citizen hotline into OPEN1999 service. In the future, the hotline will not only allow resident input through telephone or APP, but is an open source API with the function of interaction and feedback. The service will receive people's tracking and evaluation data. We do not need to worry about no one using the data, because open data's purpose is to collect people's intelligent input to make the government a better place by popular participation and cooperation. The idea of OPEN1999 is to use everyone's knowledge, and monitor how effectively the government implements policies. Transcending the first step by live broadcasting municipal conferences, mayor's meetings and Open 1999, such kinds of measures gain more accesses for citizens' municipal participation.

1.1.3 Open decision: The third area of open government is open decision, which receives the most attention. In the perspective of power theory, participation in decision-making through democratic mechanisms is the government responsibility and the people's right. However, open decision does not give the right of making decision to the people; it is a remedy mechanism for democracy. There are many successful examples of open decision in the past few four years, for instance the Shanghai Zhen greenway, Taijiang NGO, Community College and the second phase of Barclay Park, and the Arcade Smooth project. Those examples are not in the name of open government, but they are truly examples of open decision. In the future, important meetings of Tainan city will be broadcasting online, and people can propose their own ideas to the city government. Moreover, the press conference on March 9th declared that Fei Yan New Village development project involving cultural heritage preservation; and the process takes into account the opinion of civil society organizations and resident and making decisions. The whole idea makes the open government Tainan city a new better place, because of information transparency, civil participation, improved government efficiency and anti-corruption.

1.2 Implementation "citizen is most important" as the core, implementation of both "regional and social balance", mandating three sustainabilities (Environmental sustainability, development sustainability, and financial sustainability), achieving four goals of "cultural capital, low-carbon city, Technology Metro, sightseeing paradise". Since its inauguration, the new plans includes five major cultural parks, six major indicators of construction, seven major landscape renovation, eight major

private investment in Taiwan, nine major transportation construction projects, as well as an overall review of ten major land development and other specific construction targets included the integration of "building a new ten Tainan large major plans" rolling review to become the "new" plan for a blueprint of future municipal building.

1.2.1 Five major cultural parks: Fort Provintia (Chihkan Tower) cultural park, Damujiang cultural park, Zuojihe Cailiao fossil cultural park, Shueijiashe cultural park, Banian cultural park.

1.2.2 Six major indication constructions: Tainan City Museum of Art, Pacific International Baseball Training Center, Tainan City International Convention and Exhibition Centre, Tainan Municipal Public Library, Tainan Arena, the Sinying comics and animation business park.

1.2.3 Seven landscape renovation: Sinyang Art Park, Tainan waterway Ecological Park, Museum of Water, Tainan Park century regeneration plan, distinctly upgrading plan, Haian road landscape transformation and creative street art, rivers renovation - Zhuxi governance, build public bicycle rental system.

1.2.4 Eight major private investments in Taiwan: Canal Cruise ROT, the fourth business district authorities next to Tainan District Court, Anping waterscape park surrounded properties BOT, Jiangyun port leisure property BOT, south district Yancheng eighth business district authorities, golden beach boat house ROT, Hutoupi scenic youth activity center ROT and BOT, Taikang organic agriculture district ROT.

1.2.5 Nine major transportation constructions: Anping Harbor Bridge new project, Yanshuei river ring road system, Siaying district outer ring road project, 172 route from Ansiliao to Baihe district road widening project, Yanshuei district south 80 route expanded to Sinying district fusing road project, Sigang east outer ring road project (south part), Taijiang boulevard west side expansion project, Shanshang district 140-1 road project and underground railway project.

1.2.6 Ten major land developments: Chinatown canal district collection, Tainan science park GF development, Jioufenzih redistricting, Tainan new development, Yongkang logistics and service center, Yansing junior high school district collection, Sinying Changsheng campsite redistricting, Yongkang cannon school movement and Guanmiao school district development, Sinying transportation center redistricting.

2. What do you see as the key area for development in your city?

### **Research, Development, and Evaluation Committee**

2.1 Development Goals in four major cities and six industries

2.1.1 Development Goals in four major cities:

2.1.1.1 Cultural Capital:

Tainan is the cultural capital of Taiwan. Tainan City Government not only undertakes the ancient historic character but also the international city landscape to build in more innovative elements. In 2012 Tainan City Government completed the country's first "Historic Street and District Revitalization of Tainan Ordinance" enacted to reveal Tainan cultural

constitution and successfully join the “League of Historical Cities”, which expands the horizon to the international level to keep up with “ Kyoto”, “Rome”, and “Paris” on a cultural dimension. There are plentiful cultural relics in Tainan which meet the requirements of the concept of “cultural capital”. In the near future, Tainan is heading into a “life museum” as its developmental feature, including renovation of old houses, establishment connections among historical sites, museums of all scales, local cultural centers, and of course the life and food cultures in Tainan.

#### 2.1.1.2 Low Carbon City:

Due to severe climate change, conserving energy and reducing carbon emissions have become the responsibility of all mankind. To differentiate Tainan from other cities, energy conservation in Tainan has set the starting point from the individual “person”, emphasizing the cultivation of residents’ self-consciousness rather than the communities and the whole city. Tainan was the city in southern Taiwan awarded the low-carbon modern city award in 2011. In 2012, the first year promoting low carbon, the low-carbon office and “regulation of low-carbon city in Tainan”, which specifies the indicator regarding the energy conservation, were all launched and proactively carried out the declared commitment of Tainan City Government.

#### 2.1.1.3 Technological City:

The natural sunlight in Tainan is sufficient for related industries to develop solar power. Total sunshine hours in Tainan in 2013 were up to 2,094.8 hours, which was the most in Taiwan. Tainan’s cluster of optoelectronics industry represents a third of total global production and the island’s green energy technology industry base, and building a green technology Metro. The Southern Branch of Academia Sinica is planning to set up three new institutions, including agricultural biotechnology, photoelectric information, and cultural archeology information; and decided to settle in Tainan. These will not only promote academic development but also provide an opportunity for Tainan to demonstrate the strength of Tainan Technology.

#### 2.1.1.4 Tourist Paradise:

Historical, abundant, and unique features of humanity and the well-preserved historical architectures are the characteristics where Tainan differs from other cities in Taiwan, even in Asia. The cultural heritage, natural resources, natural scenery, warm climate, famous gourmet snacks, and more are making Tainan stand out. The various characteristics of agricultural geography support a wide variety of agricultural products and related industries. All of our residents are contributors in offering the best quality in tourism. Moreover, the government also works to leverage these advantages to push tourism with marketing strategies forward to a better Tainan, Tourist Paradise.

### 2.1.2 Development Targets in six industries:

#### 2.1.2.1 Cultural Creativity:

With unique cultural elements in place, Tainan has an advantage to develop cultural and creative industries. Through the plans such as small and medium enterprise service groups, fashion innovation, innovative production, the “cultural and creativity” industry is going to be introduced. In addition, the funds for “cultural” and “digital information and innovative service” are raised to encourage small and medium enterprises to devote themselves to research and development. On the other hand, there are large amounts of farm products in Tainan, such as mangos, longan, and international orchid exhibitions arranged each March. These will be combined with originality to display the capacity of design. Moreover, the public art on Hai’an Rd., cultural and creative market on Fujhong St., the creative village on Jhengshing St., and the historic passage on Shennong St. are all the best places for the creation to be fostered.

2.1 2.2 Fashion: Tainan is an important place for ready-to-wear clothing and textile industries, where utilizing technology, productivity and research abilities create advantages and promote novelty through clothing. It is our goal to make Tainan a place with quality brands and fashionable city. Through the guidance of the project plan to establish our own brands and provide new product display platforms, the local business will transform from material supplier or manufacturing into brand establishment. For example, HerMin Textile founded “Pachysandra” and Everest Textile founded “Eversmile Happy Taiwan”. They also motivated the founding of Annshop, Jihbenjhuyi, etc. fashionable brands, and collaborated with factories that are self-branded to promote factory tourism. This includes Everest Textile Eco-industrial Park and HMTM. They held a fashion showcase and fashion design contest to provide a platform for local brands and commercialize and produce the most popular product, helping to make Tainan a city that contains fashion and international perspective.

2.2 2.3. Green resources: Tainan has been one of the top 3 cities in the world that manufactures solar cell, and its solar industry has been top 4 in the world; this earned Tainan the name of tech-city. In 2011, Tainan activated its “Solar Electrical Plan” in order to utilize its solar resources and to collaborate with our industries, also encouraging public and private organizations and communities to enhance solar light systems in a way that combines cultural heritages and technology in Tainan simultaneously. For the past four years, Tainan has been nominated by Bureau of Energy, Ministry of Economic Affairs to be best in Taiwan for its solar equipment and facilities; generating 25% of electricity from Zengwun power station, providing power for 21 thousands families, and reducing carbon emissions, which is a massive step toward ensuring our place as a tech and eco-friendly city.

2.3 2.4 Biotechnology: Promoting the settlement of biotechnology industries in Tainan, collaborate with traditional industries; accelerate the industrial upgrade and transformation. For example, the Tainan Orchid Plantation in Houbi district occupies 175 hectares; and is the biggest orchid plantation in

the world, particularly the butterfly orchid. One of every six butterfly orchids in the world is from Tainan. It has become one of the top 3 orchid exhibition centers in the world and has been in operation for ten years with consistent growth. In 2014, total orders reached 953 million dollars.

Another biotechnology industry is aquaculture, with Tilapia, Milkfish and Grouper, etc. in Tainan always enjoying the reputation of being the best in quality and quantity thanks to the environment, the work of many research institutions, Institute of Biomedical Science and Lioujia Industrial Technology Research Institute, etc., in Tainan.

2.4.2.5 Elaboration agriculture: Tainan possesses the most farmland in the country, and it is also where the most barns is located, and the origin for a lot of quality agricultural products, for instance, rice in Houbi district, mango in Yujing district, pineapple in Guanmiao district, water chestnut in Guantian district, pomelo in Madou, sugar apple in Gueiren district, cantaloupe in Cigu and Annan district. Therefore, in the development of Tainan, agriculture industries are an increasingly important part of our life. The policy of “New agriculture, new village, and new farmer “are required to let agriculture to be sustainable throughout the genetically improvement of plants and the advantage of 5183 hectares of farming areas, let elaboration agriculture increase its value and also promote the reputation of Tainan.

2.1.2.6 Tourist industry: Tainan is a city that combines tradition and modern, which involves culture and technology. Through the contrast, it builds an ambience of leisure pace of the city, plus the unique sights like Taijiang National Park, Southwest Coast National Scenic Area and Siraya National Scenic Area, as well as world-class sceneries like Guanzihling mud springs, world-class wetlands, Erliao sunrise and sunset along the coast line, making Tainan a most attractive place for tourists. In 2014, about 12 million of people visited Tainan, with more than 3 million staying overnight in Tainan.

3. What would you like to leave as your legacy in office?

#### **Research, Development, and Evaluation Committee**

3.1 Hold four essences for politics, “Incorruption, Humanity, Public Welfare and Open Government” and fulfill the dreams to “Make children grow healthily, teenagers foresee hopes, adults achieve their goals, elders embrace happiness and the underprivileged get full support.”

3.2 Incorruption: Absolutely keep discipline of finance and make a good use of financial resources. We also continue cooperating with Tainan’s District Prosecutors Office to enhance public servant and corporate concepts of law and clean politics. In addition, the human resource mechanism such as open recruitment of school principals and contracted employees is carried out. At the same time, we ask the whole team in Tainan City Hall to keep honesty and diligence as each of us represent the whole team; everything must be fair and follow the law. I believe these can help set a new standard of city governance.

- 3.3 Humanity: I do listen to citizens, and all the policies and achievements are based on citizens' voices, such as flat road project, water control and the new bus systems. All the concerned authorities spent a lot of time and effort listening to people. Since all the activities reflect citizens' expectation and are from their voices, I believe citizens will definitely enjoy the achievement. This is the concept of human centralization which I always emphasize.
- 3.4 Public Welfare: We are going to construct a well-organized social safety network, including for those disadvantaged groups. In addition to the support and the assistance from private corporations, 37 districts in Tainan also established a social welfare team, including more than 600 members to hold various social events to help those people in need and make Tainan become a happiness city.
- 3.5 Open Government: Three dimensions, "Open Information, Open Service and Open Policy" will be conducted through transparent or citizen participation mechanisms to achieve the goals of transparency, participation and public and private cooperation. Open government will put the democratic values and citizen participation into practice and make Tainan become an icon of good governance.
4. In terms of foreign investment, in which sector would bring the greatest benefits to your city?

### **Bureau of Economic Development**

Tainan has an abundant and well-established historical culture. It is not only an ancient city but also has 69 industrial areas after continuous efforts by the city government, including Southern Scientific Park, Yongkang Technological Industrial Park, Liouying Technological Park, and Tainan Technological Industrial Park, where technological industrial vendors are attracted to invest and drive the development of technological industries, introducing many technological and industrial talents in the city, providing abundant consumer capabilities.

Therefore, there is an urgent need to introduce investment in large shopping venues, high class hotels, logistic industries, and department stores to Tainan, so that the best and delicate spaces for shopping and entertainment can be provided, for example, Lin Department Store, Southern Textile Dream Mall, Elite Hotel, Focus Department Store, and COSTCO, which can provide a quality lifestyle to high-tech talents in the Tainan area.

To be the commercial center of the southern Taiwan is the goal expected by the city government. We hope to take the developments and protections of local culture into account while pursuing economic developments.

If the foreign investments are divided into several aspects, such as funds, manpower, and technologies, the funds of foreign investments have the most beneficial effects. As Tainan is a cultural city, and from this point of view,

foreign cultures will eventually blend with local cultures no matter what, especially in terms of input manpower. Foreign laborers living in Tainan will interact with local residents creating diversity and new standards of living. As for the input of funds and technologies, these two aspects are usually related to the management and operations of companies. The local residents working in companies will be influenced by foreign cultures and complement each other.

#### **Bureau of Tourism**

Tainan Government suggests that foreign investment can invest in tourism. Tourism has played an important role in Taiwan economic development. Tainan is a start point for traveling in Taiwan. There are many cultural and historic resources in Tainan. Tainan is a must-see city for foreign visitors. There are more and more foreign tourists in Tainan. The demand in tourism increases so that it is time to invest in Tainan tourism. With the foreign investment, Tainan tourism can become internationalized and be a part of international tourism.

#### **Bureau of Agriculture**

Marlow Yachts Group USA, Taiwan Branch signed a contract with Tainan City Government for investment of shipyard in Tainan Jiangjyun fishing port last year. Estimated the completion of the first phase shipyard building and formal work in AD 2015, it will create about 200 jobs and the export output value about \$30 million a year. After the completion of the second phase of the duck-yard building, another 200 jobs will be created; reaching a total output value of \$60 million a year. It can be strengthened in the future to recruit this kind of investment

#### **Research, Development, and Evaluation Committee**

##### 4.1 Smart City :

2.1.1 In November 2013, Tainan City Government applied for the competition of 2014 Smarter Cities Challenge held by IBM with the themed topic of Combined Green Tainan Transportation System, creating a century cultural capital of economic transformation. Standing out from more than 100 cities, Tainan city is the only selected city in Taiwan. There were only 16 cities worldwide selected.

2.1.2 In July 2014, IBM assigned five foreign experts to Tainan. They worked with city government for three weeks, and talk to local communities, societies. We think of three main principle-TCG (Technology, Communication, Governance) and seven policy proposal planning report with the counsel of IBM to make Tainan city a low-carbon city.

2.1.3 To build smart and low-carbon city is our goal. It is believed that it will bring win-win situations for the city if foreign investment has similar goals in mind.

5. Are there currently, or planned, development centers in your city which focus on environment technologies? How are they expected to assist in identifying,

developing and maturing, transferring technologies, and commercializing ideas?

### **Bureau of Economic Development**

Along with the consensus of saving energy and reducing carbon, facing the exhaustion of traditional energy sources and the risk of nuclear energy, renewable energy is getting attention around the world. From the development of renewable energy by advanced countries, such as the U.S., Germany, and Japan, it is not difficult to see that solar energy is the first choice for renewable energy as it is the best fit.

Tainan was famous for its prosperous salt industry (such as Chiku Salt Mountain, North Gate Ginzijiaowapan Salt Field) due to excellent sunshine.

Additionally, there are factories in the complete solar industrial group, including well-known world vendors, from silicon crystal, solar batteries, to solar energy modules. To utilize these advantages and expedite the developments of local solar energy industry, Tainan City Government initiated “Tainan City Solar Energy City Plan” in 2011. The governmental departments led demonstration programs, and citizens were encouraged to set up solar energy systems on roofs.

Since the solar energy city plan was initiated in 2011, until the end of December 2014, the applications for up to 1,796 cases have been processed, which reduced carbon emission by over 60,000 tons.

This also encourages us to work harder for striving forward pragmatically. We shall together make the best use of the gift given by God to Tainan City – sunshine by installing solar power systems on roofs, which can improve the city landscape, isolate heat, cool down temperatures, reduce the required capacity of air conditioning, save electricity, and earn money. What is the most important is to feedback to our home, both you and me, the only Earth.

### **Bureau of Education**

- 5.1 In response to one of Tainan City Government’s top 10 plans—low-carbon urban policy, and to reach the outcomes of the water-repellence and the heat insulation of the roofs of school buildings, in 2014 Tainan City Bureau of Education conducted “the rental case of setting solar photoelectric boards on the roofs of the municipal school buildings” to plan to utilize placing the solar photoelectric panels on galvanized steel boards as the constructing method. The plan has finished the contracting stage and is in progress now, such as accomplishing the tender awarding of 14MWP setting capacity in 2016. Besides the achievement of the carbon reduction capacity to 14993.1 metric tons per year will be expected in the future via this case and the water-repellent and heat insulating conditions of the roofs of at least 100 school buildings will be improved.
- 5.2 In order to accomplish the vision of becoming a low-carbon city, Tainan City Government has integrated environmental education resources, set up the low-carbon school work groups, and assisted schools in serving as

centers for promoting low-carbon education in communities. Since 2011, the low-carbon school working group has made several low-carbon strategies and also put them into practice, including certification of low-carbon schools, the 59410 school resource exchange platform, using water-saving and energy-saving products and gadgets, promoting carbon-neutral schools and low-carbon education.

#### 5.2.1 Certification Labels of Low-carbon Demonstration School Plan:

The concrete concepts of low-carbon schools can be interpreted in five categories: energy-saving, water-saving, energy recycling, sustainable green school, and low-carbon life education labels. The standards for label certification have been thoroughly set. Schools which actively promote low-carbon environment construction and curriculum development are encouraged to apply for label certification in these five categories. 97 schools have been certified in 2013 and 2014 altogether. What's more, Tainan Municipal Taikan Elementary School and Tainan Municipal Da Jhu Elementary School, which have acquired the label certification in each category in 2014, were awarded as Tainan City Certified Low-carbon Demonstration School with honor.

#### 5.2.2 59410 school resource exchange platform:

On this platform, information about low-carbon schools and relevant resources from each school are shared and used extensively, which conforms to the concepts of low-carbon schools. From March, 2014 to 30th January, 2015, our city has offered 305 pieces of information and successfully received 82 pieces.

5.2.3 In order to raise energy efficiency, the schools that are equipped with high energy-consuming devices can be subsidized to purchase energy saving timer devices. In 2014, 187 schools were subsidized with 1788 energy saving timers.

### **Research, Development, and Evaluation Committee**

#### 5.1 Smart City Development:

5.1.1 Technology is the vision of Tainan City. Tainan City Government takes 'Ten Major Plans for Constructing Tainan' as the direction of city governance. Among ten plans, the technology part is mainly about combining smart city and Tainan city to achieve the goal.

#### 5.1.2 Practice of Smart City Development:

5.1.2.1 Electronic documents used between government units including filling government forms online, establishment of an open data platform, and marketing city governance with social media-Line.

5.1.2.2 Tainan City Government Established 507 free Wi-Fi hotspot with iTaiwan providing citizens with a convenient internet environment.

5.1.2.3 Planning to build Jiu-Fen-Zi Readjustment area as a Smart City and low-carbon region.

5.1.2.4 The concept of Smart Rural Classroom use of cloud technology to create innovative educational services, planning to organize smart classrooms and rearrange teaching material to include smart teaching material.

5.1.2.5 The concept of Smart Rural Health Care uses smart technology at local health centers to monitor the health of local elderly. Meanwhile, city government combined hospital and local health centers to build a more comprehensive healthcare network.

6 What are the projects focusing on energy conservation; on adding renewable energy generation?

**Bureau of Civil Affairs**

6.1 Energy-saving Lights for District Offices

To support the city's low-carbon city policy for sustainable operations and realize energy saving and environmental protection, we subsidized seven district offices with a total of NT\$1,469,268 to upgrade lights to T5 energy-saving lights during 2011-14 to reduce energy consumption.

6.2 LED Light Guidance for Temples

Electricity consumption for lighting in most temples is high as they are old and use incandescent lights for lighting and rituals nearly 24/7. For energy saving and environmental protection, we continuously guide and subsidize them to use energy-saving lights, such as LED lights to save energy, reduce carbon emissions, and ensure safety of electricity use. We also guide them to implement other emission reduction measures to shape the new value for quality religious culture in Tainan City.

**Bureau of Environmental Protection**

**Tainan incineration plant major energy-saving projects and renewable energy development Description**

6.1 Major energy-saving projects:

6.1.1 Yong-Kang incineration plant:

6.1.1.1 UPS system improvements:

Original equipment efficiency of 77% was improved after device replacement efficiency to an overall efficiency of 95%, with the overall efficiency increase of 18% saving 99,864 Kwh / year and carbon emissions 53,527 kgCO<sub>2</sub>e.

6.1.1.2 The secondary air improvement :

The original high pressure (3,300VAC) motor drives were changed to (480VAC) and controlled by low voltage motor drives, effectively reducing electricity. This upgrade saves 1,389,600 Kwh / year and carbon emissions savings 849,046 kgCO<sub>2</sub>e.

6.1.2 Cheng-Xi incineration plant:

Item	Power (1000 kWh / year)	carbon emissions (ton CO <sub>2</sub> e)
2rd chiller temperature set to change	690.03	367.10

Tilting platform retrofitting electric lighting station control	120.10	63.89
Low-voltage switch room air conditioner (AH02) additional converter energy saving	120.10	63.89
Replace inefficient 3rd chiller	114.47	60.90
Visit line plus entrance infra-red sensors, switch on the lighting circuit	80.72	42.94
Main transformer room air conditioner (AH03) one additional converter energy saving	71.83	38.21
In the control room and the Inn room air (AH04) additional converter energy saving	40.47	21.53
Size of boiler feed pumps switch management	40.30	21.44
Total	1,278	679

## 6.2 Development of renewable energy.

Tainan incineration plant operations are operating in both advanced design / operation of the facility. The most important is the use of heat generated by burning garbage to produce high temperature and pressure steam used by turbines and generating more power. The Tainan incineration plant itself is generating regenerative energy (electric power).

### **Department of Health**

#### **Tainan Municipal An-Nan Hospital-China Medical University won the "Gold Award for Green Building"**

Tainan Municipal An-Nan Hospital-China Medical University is the first hospital entrusted with application in BOT form by local government. Tainan City government had signed the concession contract of "Tainan Municipal An-Nan Hospital Build-operate-transfer (BOT) project" with the best applier - China Medical University in June 23, 2010. (Period of contract: June 22, 2010 ~ June 22, 2060.) Building began on March, 2011, and operation officially began on Feb 2, 2013. On May 2013, the hospital won the "Gold Award for Green Building", providing medical service as well as saving the environment, which is one of the factor that contributing Tainan City as the low carbon model city.

### **Bureau of Economic Development**

The sunshine in Tainan City is excellent, so we have natural advantages to develop solar power. To further utilize the sun's resources, Tainan City

Government raises “Sunshine Solar Power Town Promotion Plan”. In the plan, many working items are the innovative policies for promoting solar power among national/local governments, including sunshine roofs, sunshine community, green factory and office subsidy plan. We promote residences owned by government to be installed with solar power with PV-ESCO mode and negotiate with banks to provide loans in project base, as well as “Tainan Sunshine Solar Power City Information Network” and professional counseling team to provide consultancies. This not only has successfully built 10 sunshine communities but also attract other counties to be involved in the developments of solar power.

From 2011 to the end of December, 2014, the cases to apply the installations of solar power in Tainan have been reached 1796. The total capacity is close to 93MW, which leads the counties in Taiwan. In the future, Tainan City Government will continuously enhance the promotions of solar power. We believe, under the efforts together with the citizens and the city government, it is expected we can build Tainan City to become the international icon of solar power.

#### **Bureau of Transportation**

Replace traditional lighting with LED traffic signals creating energy-saving efficiency:

With the development of technology, it is trend to replace traditional lighting with LED traffic signals. Consideration of energy saving, LED lamps have gradually replaced traditional incandescent bulbs. Since 2001, we replaced signals about 40,000 traffic signal lights to LED, which reduced about 19,200,000 kW each year and carbon dioxide emissions about 12,000 tons.

#### **Bureau of Tourism**

6.1 Tourism transportation: There are bicycle rental services in every scenic spot and tourist information center. Tourists are expected to use bicycles as their transportation means to reduce the energy consumption and pollution caused by tourism. There is significant improvement in Anping area.

6.2 Tourism marketing: Tainan government use APPs, the Internet and QR codes to promote intelligent and smart tourist services. These services provide tourists with instant and convenient tourist services. At the same time, we reduce the cost of printing paper pamphlets. Tainan is in the process of being an intelligent and smart tourism city.

6.3 Tourism engineering: Tainan government is replacing the street lights and tourist signs in scenic spots with solar energy products or energy-saving products.

#### **Department of Secretariat**

6.1 Based on Current Policy Outcomes, Future Promotion Plans and Developmental Visions in 2015, the project “Solar Electricity Generation Plan in Office Buildings” is being led by the Bureau of Economic Development. There are open bids for setting up photovoltaic generation system at office buildings

in the East Dist., North Dist., South Dist., West Central Dist., Anping Dist., Annan Dist. and Rende Dist. of Tainan. Golden Asia Optoelectronics Co., Ltd, which is capable for the initial stage of the plan, proposed three locations for establishing photovoltaic generation systems in Yonghua Municipal Center and initially analyzed the capacity, cost, return on investment and related information.

6.2 It is estimated that the total photovoltaic capacity from three locations is approximately 418kWp, and the total cost is about \$30,723,000 NTD. In the first year, the generated electricity will up to 548,834 kWh. If the electricity rate is set at \$5.3627 NTD/kWh, the total electricity income will be roughly \$3,089,655 NTD. The investment recovery period is about 12.6 years, and the return on investment will be about 9.16%.

6.3 Due to the massive costs of the photovoltaic generation system, Secretariat would like to authorize Golden Asia Optoelectronics Co., Ltd to build up and operate the photovoltaic generation system. In addition to activating renewable energy in the office buildings, we can have the rent income from the contractors. The first step is to ensure the position for photovoltaic generation system setup so that the contractor is able to further analyze and evaluate the project.

#### **Bureau of Agriculture**

Tainan City Government promotes agricultural greenhouses. They push livestock producers to install solar power installations on the livestock rooftops which are typically quite large so therefore suitable for solar power. Currently, the largest agricultural greenhouse in Tainan is the St. Benedict ranch that has a solar power generating capacity up to 100 megawatts.

#### **Bureau of Public Works**

“Expanded LED Streetlight Installation Project in Tainan City” The replacement of a total of 52,189LED streetlights has been completed based on a total budget of NTD 417.512 million. It is expected to lead to electricity bill saving of around NTD 63 million, and the CO<sup>2</sup> emission reduction of around 13,990 tons.

7 What successes would you most like to highlight?

#### **Research, Development, and Evaluation Committee**

7.1 Following financial discipline, the Tainan City Government paid back more than hundred million in debt, improving its financial status. Mayor Lai has promoted six retrench plans and deleted many illegal subsidies. Since the merger of Tainan city and Tainan County three years ago, Tainan has reached a balanced budget. In the meantime, we initiated several development plans and use money from the private sector to build infrastructure; more than 20 billion NTD from the private sector over the past four years.

7.2 Establishing a fair and open human resource system to build a great human force. The Reserved District Office Supervisor system helped to find the

best supervisors for our citizens, and it is the first system of its kind ever built. Additionally, we provide public offers and promotion opportunities for school presidents, parking lot staff, medical services, and cleaning staff.

7.3 Investment in Tainan - Realization of the core value of 'Eating is the first priority'. After the merger of Tainan city and Tainan County, Tainan City government established a single window for investors to solve problems including;

7.4 Flood control policy: About one-third of "High Risk Flooding Areas" are located in Tainan. More than 45 billion dollars are needed for flood control constructions in Tainan, as estimated by Water Resources Agency, Ministry of Economic Affairs. In order to solve this problem, Tainan City Government raised funds, totally 1.6 billion dollars, for flood control, and these constructions performed well in flood prevention. For example, the flooded area after typhoons in 2013 covered only 3,310 hectares, compared with the flooded area after typhoons in 1999 covered 55,000 hectares.

7.5 Tainan Public Transportation System: We launched "Rapid Transit Public Transportation System" in 2012 as the blueprint of Tainan's public transportation system. The program includes Bus Rapid Transit, TRA Rapid Transit, Intermodal Station Development, Demand Responsive Transit Service, Ticket Integration, and Advanced Public Transportation System. The bus routes in Tainan were reconstructed in 2013. There are six main routes, namely Green, Orange, Blue, Yellow, Brown and Yellow Routes, plus 74 side routes. Also, there are 17 routes in downtown Tainan. These routes have provided greater convenience for using public transport system. More than 15 million people took buses in 2014, doubling previous ridership.

7.6 The growth in output value of agriculture: The policy, "New Agriculture, New Villages, and New Farmers," has been promoted for more than 4 years. The government not only established "Agricultural Special Regions" but also developed diverse sales channels for the agricultural products. Orchid, mango, pineapple and pomelo are main products, and are exported to Japan, South Korea, Hong Kong, China, Australia and Canada. The gross output value grew from 42.9 billion to 60 billion in the past four years.

7.7 The member of League of Historical Cities: Tainan was officially announced as the member of League of Historical Cities in July, 2012, and is the only such city from Taiwan. There will be more communications with other cities in different countries, and that will help Tainan improve the policies on culture.

7.8 Low Carbon City & Smart City: In 2011, Tainan was awarded Low Carbon Demonstration City in Taiwan. After that, "Low Carbon City Autonomous Regulations in Tainan" was promulgated, and projects of sustainable low carbon communities and civil low carbon life were proposed. In 2014, projects for low carbon cultural & tourism and public transport systems

were proposed. With its efforts on these projects, Tainan was awarded IBM Smart City Award in 2014 and was the only city in Taiwan to win the prize.

7.9 Flights between Hong Kong and Tainan: The flights between Hong Kong and Tainan started on July 18th, 2013. Since March 30th, 2014, there are flights between these places every day, bringing much benefits of tourism.

7.10 Social Welfare policies: Tainan City Government has spent much effort on social welfare. For people over 65 year's old, supplemental support for dentures and vaccinations against Streptococcus pneumonia have been performed. We also established a "Walking Hospital" for people living in rural areas. We have Community Care Centers as shelters for elder people in almost every community, and the number of Community Care Centers in Tainan is the largest in Taiwan. For children and infants, we have grants for new born infants, free public kindergarten, and supplements for tuition for students in the schools where there are less than one hundred students. Because of these policies, the average life expectancy of people in Tainan increases 0.33 year in the past four years.

7.11 Building a safe city: Tainan is the first city that established Disaster Prevention and Relief Office. The office will communicate with all related department while dealing with disasters. The "Flat Road," project has been promoted for years, and many roads in Tainan have become smoother, providing safer environments for road users. The Arcade-friendly Project was proposed and it provided friendly environment for pedestrians.

7.12 Several delayed plans are again on track: There were numerous plans that were delayed for about 12 years for a number of reasons. However, the government started to get them back on track, and has even finished some of them in the past 4 years. These plans included the migration of some schools, the development plans in certain regions, and the arrangements of freeways and highways.

#### Department of Information and International Relations

City diplomacy has become the latest trend in international relations. Since the merger of Tainan City and Tainan County, Greater Tainan has signed friendship agreements with seven political divisions in three different countries, including Japan, Australia, and the United States. In April 2011, in order to show our concern for the suffering of our friendship city, Sendai, after the 311 earthquake, Mayor Lai led a special delegation to the disaster area to personally deliver donations totaling JPY 100.77 million. Furthermore, in June of the same year, he led a delegation of 305 persons to another Japanese friendship city, Nikko, in order to boost the tourist industry. On July 18, 2013, Tainan Airport launched its first regular international flight service between Tainan and Hong Kong. In 2014, Mayor Lai presided over the opening ceremony of the exhibition of paintings by the late Taiwanese artist Chen Cheng-po, and also held a medical tourism expo in Shanghai to promote Tainan's excellent medical tourism. All of the activities served not only to promote mutual friendship, but also to give our

city increased international exposure that let the world know of the great strides the city has made and publicize Tainan as one of Asia's most livable cities.

#### Bureau of Agriculture

According to agricultural output value data from *AG. STATISTICS YEARBOOK 2013*, published by the Council of Agriculture, Executive Yuan, R.O.C. (Taiwan), Tainan City ranked fourth with NT 51.14 billion in 2012. It increased NT 4.4 billion to NT 55.54 billion and ranked third in Taiwan in 2013, a record high for Tainan City. Tainan City Government estimates agricultural output value in 2014 up to NT \$ 60 billion, due to increased acreage, good weather, a number of agricultural products prices and booming sales increased over last year, with mango and orchid exports especially; pineapple opened a Canadian export pathway, some agricultural products, such as lotus root powder and sesame oil sold out. Tainan farmers' total income increased by NT 45 billion over that of 2013.

Fallow land in Tainan from 50,824 hectares in 2010 down to the 20,130 hectares in 2014 through promoted agricultural production zones and activation of fallow land by Tainan City Government. In other words, there are 30,694 newly added hectares of cultivated land to grow crops.

After four years of implementation of the flagship plan for new agriculture, new countryside and the new farmer by Tainan City Government, the new agricultural achievements total 5,174 hectares of agricultural area with competitive advantage, 30,694 hectares of fallow land activation.

#### Outcome of the of the new rural plan implementation

First in Taiwan, there are a total of 53 rural communities through review by rural regeneration plan of Soil and Water Conservation Bureau (<http://ep.swcb.gov.tw/ep/Default.aspx>).

#### Bureau of Urban Development

Many of Tainan's inhabitants had high expectations for the merger, hoping that it would help Taiwan's first city regain its historical glory. The merger gave Greater Tainan more land, resources, and development potential, making a comprehensive land use review an essential priority for City Hall, especially for those projects which have been delayed for years. Ten Development Projects for Regional Balance were proposed as a result of the review; these are government-led land development projects targeting the region's most important nodes, with the aim of achieving balanced prosperity across regions and across the urban-rural divide. The revitalization brought by these projects will drive overall development and make Tainan not just a great place to visit and live, but a great place to move to.

The ten projects cover a total of 557 hectares. Approximately 305 hectares will be available for construction (including residential, commercial, and industrial uses) and 252 hectares for public facilities (including parks, roads, parking lots, etc.), such as:

### 7.1 Rezoning and Comprehensive Development of Xinying Bus Special Transit Zone and Special Industrial Zone

City Hall is developing the Xinying Bus transit hub in order to spur growth north of the Zengwen River (the part of Tainan known as the Xibei region). The project is now in the rezoning and development phase. Construction started in January 2015 and is due to be complete in 2016. Early planning work for the operation of the transit hub is also under way, with an official call for bids in October 2014. The site will integrate long-distance and local bus service and become the largest transit hub in the Xibei region, serving as a gateway into the area.

Rezoning and comprehensive development of the Xinying Bus Special Transit Zone and Special Industrial Zone

### 7.2 Rezoning and Comprehensive Development of Xinying's Changsheng Base

The redevelopment of Changsheng Base, long anticipated by the people of Xinying, was approved by the Ministry of the Interior's Construction and Planning Agency in September 2014. Planning work for rezoning is currently under way; development of the 11-hectare site is due to be complete in 2018. The project will give Xinying a new 1.29-hectare park, forming a green belt with the recently-completed Yisheng Canal renovation, which will transform life in the surrounding areas.

Rezoning and comprehensive development of Xinying's Changsheng Base

### 7.3 Land Acquisition and Development of Southern Taiwan Science Park Zones G and F

Phase 1 of the Southern Taiwan Science Park (STSF), located in the center of Greater Tainan, began over 10 years ago in 2004. Currently, Zones L and M have been opened for residential development, and building applications have been received for over 50% of their areas; it is projected that those two zones will begin running out of available construction space in five years. With nearly 10,000 new jobs created annually in STSF and the nearby Tree Valley Park, the need to develop Zones F and G are apparent. The two zones total approximately 115 hectares and are planned to accommodate 15,000 people upon completion. They will provide 55 hectares for residential use and 9 hectares for commercial use; with public facilities to integrate nearby green and waterfront spaces, communities in these two zones will be flood-proof, green, and low-emission. Backloun Boulevard passes through the zones in its segment between Highway 19A and Tainan Highway 133, and will mitigate the impact of development on traffic in STSF and Shanhua. In the interest of transit-oriented development, a transit hub on the intersection of Highway 19A and Siraya Boulevard is under consideration. Together with rail improvements, the Greater Tainan bus system, and a bicycle path network, the hub will contribute to a comprehensive transit system. Land acquisition for the development is due to be complete in 2018.

Land acquisition and development of Southern Taiwan Science Park Zones G and F

#### 7.4 Rezoning and Comprehensive Development of Yongkang Special Logistics and Transport Service Zone

The site west of the Yongkong interchange on Freeway 1 was designated a transport center in 1978, but development had long been stalled as detailed plans were never completed. Efforts to solve this problem began in 2005; after years of work, implementation of the 15-hectare logistics and transport rezoning plan finally began in 2013. The rezoning is currently in the planning and design phase, with completion of development expected in 2017. Completion of this project will signify an end to the three-decade construction ban in this area. Storage, hospitality, and commercial industries will be targeted for the special zone, with the aim of establishing a logistics commercial center.

#### Rezoning and comprehensive development of Yongkang Special Logistics and Transit Service Zone

#### 7.5 Land Acquisition and Comprehensive Development for new Yanxing Junior High School in Yongkang

The Yangxing Junior High School development project is immediately to the north of the Yongkang Special Logistics and Transport Zone. The rezoning of the site was approved by the Ministry of the Interior's Construction and Planning Agency in 2013, and land acquisition began shortly thereafter. The development's completion is projected for 2018. Covering 61 hectares, the project will include commercial and residential areas, a 60-meter waterfront green belt along the Yongkang Drainage Ditch, and comprehensive public infrastructure. The site will be a center for livability on the edge of downtown Tainan. Yongan Road will also be widened to 40 meters in conjunction with this project; not only will this eliminate the traffic bottleneck on the border of old Tainan City and Tainan County, it will also be a vital link for urban development near the Asia Pacific Baseball Village in Annan District's Museum of Taiwan History campus.

#### Land acquisition and comprehensive development for new Yanxing Junior High School in Yongkang

#### 7.6 Land Acquisition and Comprehensive Development of Yongkang Creative Design Park (Yongkang Cannoneer School)

The Yongkang Cannoneer School covers 83 hectares in the heart of Yongkang District. A longtime military base, it has been an impediment to urban development in surrounding areas. A proposal to turn the site into the Yongkang Creative Design Park won Executive Yuan approval in 2004; the Cannoneer School will be relocated to Guanmiao District, and the site redeveloped for creative and design industries. A special mixed commercial zone is also planned for larger-scaled commercial sites, as well as a special life services zone to provide housing. The Creative Design Park will also include a 50 meter-wide green boulevard, a large regional park that covers approximately

16 hectares, and other public facilities. It will represent a major improvement to Yongkang's livability.

#### 7.7 Rezoning and Comprehensive Development of Pingshi Base and Jingzhong 3rd Village

Located on the border of the East District and Yongkang District, the Pingshi Base Sub-center was originally a 44-hectare military site. After negotiations conducted by City Hall with the Ministry of Defense, a consensus was reached to turn the site into a demonstration for collaborative urban rezoning and development. Rezoning is now in progress, and is projected to be complete in 2016. The development of this site will be a boon to the cityscape and convenience of the East District; together with the Ambassador Theater area and the Tainan Spin development nearby, the site will become part of a new multifunctional commercial zone. Making good use of existing landscaping and structures, City Hall has planned a 7-hectare central park for the development; it will connect to the planned park in the Tainan Spin development to become an attractive urban green space for walks, jogging, exercise, water activities, flower appreciation, and kite flying. The station zone on the intersection of Xiaodong Road and Zhonghua East Road will be a major transit node in the future. A new 20-meter north-south road by the Veterans Hospital will also be constructed, in accordance with an agreement between City and County Hall prior to the merger. The new road will be a major part of convenient north-south transit between Yongkang, East, and Rende Districts.

#### Rezoning and comprehensive development of Pingshi Base and Jingzhong 3rd Village

#### 7.8 Land Acquisition and Urban Renewal in Chinatown and Canal Star areas

The goals of the Chinatown urban renewal project are to mitigate the crime, public health, and public safety issues associated with the abandoned Chinatown shopping center, to spur redevelopment in the Central and West District through new public spaces and facilities, and to restore the prosperity of the canal's dead-end section. To maximize local benefits and achieve the best land use possible, the project has been integrated with the Canal Star project, and land acquisition is under way in conjunction with the relocation of Xinnan Elementary School and Jincheng Junior High School. The project will cover 11.23 hectares; completion is currently scheduled for 2019.

#### Land acquisition and urban renewal in Chinatown and Canal Star areas

#### 7.9 Rezoning and Comprehensive Development for Jiufenzi

Tainan was selected by the Environmental Protection Administration as southern Taiwan's low-carbon demonstration city on August 4, 2011. The rezoning of Jiufenzi coincided with this designation; in accordance with the spirit of the Tainan Low-Carbon City Self-Governing Ordinance, City Hall chose Jiufenzi as the first demonstration area for its low-carbon vision. The project covers 101.77 hectares, with open spaces centering on a north-south stretch of

water and green belts. Urban planning and rezoning is expected to be complete in 2015. In accordance with its low-carbon vision, many green planning concepts are included in the land management approach for this project, including solar power facilities, green power generation, encouraging green industries, rainwater storage facilities, green building regulations, and encouraging low-emissions vehicles. It is hoped that Jiufenzi will become a model for new communities in Tainan.

Rezoning and comprehensive development for Jiufenzi

#### 7.10 Land Acquisition and Comprehensive Development of South Tainan Station Sub-center

The South Tainan Station Sub-center, located on the border of East and Rende Districts, is also one of City Hall's most important development projects. Covering 93 hectares, the project is located near Tainan Airport, Highway 1, Highway 86, and the South Tainan railway station, making it ideally situated for transit; it is also well-connected to culture and recreation resources, with the Tainan Municipal Cultural Center, Barclay Memorial Park, and Tainan Metropolitan Park all nearby. The sub-center will bring together the urban and the natural in a multifunctional location that includes housing, retail, sports and conference spaces, culture, education, ecosystems, and natural sites. Land acquisition is now under way for this project; in the future, Barclay Memorial Park will be expanded by 5.62 hectares, strengthening its connection with the Municipal Cultural Center. An added 14.92 hectares will be devoted to cultural and educational uses; currently, a covered arena and large-scale open spaces are planned. The extension of Chongming Road to intersect with Shengchan Road is also under construction and will enter service soon. Completion of land acquisition is projected for 2016.

Land Acquisition and Comprehensive Development of South Tainan Station Sub-center

### **Bureau of Civil Affairs**

#### 7.1 Birth Encouragement Program:

The childbirth rewards are given to raise fertility in Tainan and recognize the pregnancy and labor toils of mothers. To encourage mothers to have two or more children, the reward for the first child is NT\$6,000 and NT\$12,000 for the second child onward. From 25 December 2010 to the end of 2014, a total of NT\$546,378,000 was given to 61,130 cases.

#### 7.2 Unoccupied Land Management:

To achieve unoccupied land reuse, homeland beautification, and townscape renaissance, the Statue for Vacant Land and Premises Management and Directions for City Vacant Land Adoption, Management and Maintenance were established. In 2012, district offices were supervised to control, clean up and adopt unoccupied land based on the Tainan Metropolis Building Plan to clean up and maintain the environment and landscape of unoccupied land with the

resources of public and private sectors and local communities. From 2011 to January 2015, 50.72 hectares were adopted, including 44.84 hectares with greening and beautification, 3.04 hectares of parking, 1.44 hectares of sports ground, and 1.40 hectares of other venues for charity.

7.3 Promotion of Tainan Citizen Card (Citizen Card):

7.3.1 The citizen card is promoted to enhance city identification, encourage citizens to involve in urban construction, create the IC card service environment in Tainan, and make public life more convenient.

7.3.2 The citizen card functions include public transport, government service charge, small-amount payment, and library card. Value-added functions including point redemption policy, museum admission fee payment, parking fee payment and health data will be launched later.

7.3.3 The citizen card includes “baby card”, “ordinary card”, “student card” (digital), and “social welfare card”. It is a registered card at NT\$120 each.

7.3.4 The card will be officially issued on 1 April 2015.

Bureau of Tourism

7.1 To promote local delicacy: Tainan is not only a cultural city but also a famous delicacy city. Tainan is the best choice when it comes to experiencing Taiwanese culture and local delicacy. Tainan government holds promotion activities to emphasize various tourist spots and local delicacy. We hold promotion activities to promote local specialties combing with culture and tourism such as Dongshan Coffee Festival, Haubei Rice Festival and Yujing Mange Festival. These promotions enrich cultural tourism and help with the sale of agricultural produce and benefit the farmers.

7.2 Tour in Tainan app: There are more than 2300 stores in the Tour in Tainan APP with the user-friendly functions of GPS, QR code and AR virtual reality. The Chinese version was uploaded in 2013 followed by English version in January 2014 and Japanese version in March 2014. The number of download times has been 85,878 by the end of 2014.

7.3 Tainan Tourism Bimonthly Magazine: This magazine was first published in May 2011. There have been 23 issues as of January 2015. In each issue, there are articles about every scenic spot, suggested tours and seasonal activities. Tourists can learn and experience Tainan by reading this magazine in tourist information centers, stores in scenic spots and tourism related institutions.

7.4 New Year Trio in Tainan: The 2014-2015 New year Trio was held by southwest coast National Scenic Area Administration. Siraya National Scenic Area Administration and News Bureau. This trio activity successfully put the oldest Beimen Jingzaijion Tiled-paved Salt Fields and Erliao on the international tourism. Erliao is on the lowest spot in Taiwan and the best sunrise scenic spot. There were excellent music performances for youngsters. This activity is the most-recommended tour to see off the last sunset and greet the first sunrise. There were more than 210,000 people

joining this Trio activity, successfully promotion a new trend to tour in Tainan and improving local economy. Moreover, on New Year in 2015, Tainan government held Hu-Tou Pei Hiking and Morning Concert. There more than 10,000 people joining this activity. All these activities were in good coordination to promote Tainan tourism.

### **Bureau of Labor Affairs**

7.1 Promote the development of a quality management system personnel (TTQS-Taiwan Training Quality System) assessment, the only gold medal for four consecutive years in public sector of Taiwan.

7.2 Value the quality of employment services and vocational training, and won the (GOVERNMENT SERVICE QUALITY AWARD) prize, it's a highest honor.

Labor Affairs Bureau Vocational Training Center is newly established secondary institutions under Labor Affairs Bureau after Tainan upgrading municipality; to "help people find work, to help the bosses to find talent" is our mission. We set up only four years ago, but we use diverse and creative services channels and models, actively develop employment opportunities, diligence in matchmaking activities, enhance the quality of vocational training, and uphold the spirit of continuous improvement, providing quality services for the people, and the launch of the creative measures, we won the sixth "2014 Government Service Quality Award" prize, the highest honor, known as the Oscar for government departments Awards, and being the only public sector institutions which handle vocational training employment services business won the prize.

### **Bureau of Water Resource**

7.1 The sewer system penetration rate rose from 11.57% to 21.57% in the past four years; nearly double.

7.2 Through flood control, the flood area caused by Typhoon Kong-Rey on 29 August 2013 was 3,310 hectares. It was significantly reduced from 18,375 hectares on 12 June 1994 caused by extremely heavy rain.

### **Bureau of Public Works**

#### **7.1 Road Construction**

##### **7.1.1 The Expressway Construction Project:**

The construction works of the three highways in Tainan City (National Freeway No. 1, 3 and 8) have been completed already. As for the three expressways (Provincial Highway No. 61, 84 and 86), Provincial Highway No. 86 was fully operated on December 15<sup>th</sup> 2013, and Provincial Highway No. 84 was fully operated on September 27<sup>th</sup> 2014. The last mile of Provincial Highway No. 61 (the section from Badongliao to Jiukuaicuo) is expected to be fully operated in 2017. By that time the three-vertical-three-horizontal road network in the city will be completed, which will not only bring more transport benefits to local residents, but also promote the development of the City's mountain and sea resources for tourism.

### **7.1.2 Interchange Expansion Project:**

Tainan City plans to construct the Liuying and Dawan interchanges, and to improve the Rende interchange with a total budget of NTD 1,751million. Among them, the construction work of Liuying Interchange was completed on July 19<sup>th</sup>, 2014. As soon as it starts to operate, it can satisfy the life circle and transportation demand of the great Xinying in Xibei area of Tainan City, enhance the development of Liouying Technology Industrial Park, promote tourism development of the Siraya National Scenic Area, and fulfill requirements for the establishment of medical aid and rescue network. On the other hand, construction of the Dawan Interchange and the improvement of Rende Interchange will not only relieve the traffic load of Yongkang and Rende interchanges, but also improve the traffic jams at Tainan interchange ramps. This will help establish a Greater Tainan's traffic network and build a traffic hub that brings citizens a convenient life and promotes the economic development of this city. The expansion projects of these two interchanges are expected to be completed by the end of 2016.

### **7.1.3 The Life Circle Road Construction Project**

Tainan Public Works Bureau has submitted its application of 2009~2014 Tainan City Life Circle Road Network System Construction Project to the central authority. With a total budget of NTD17.437 billion and 39 road construction works to be accomplished, this construction project aims to improve the driving efficiency of regional road system and to construct roads by following the schedule of urban planning, thus achieving the objectives of creating a convenient transportation network in both urban and rural areas, and promoting regional development.

For extending the achievement of the 6-year construction project, an application has been submitted to the central government for the 2015~2018 Tainan City Life Circle Road Network System Construction Project with a total budget of NTD 6.2 billion for the Phase 3 project of Northern Outer Ring Road of Tainan Urban Area which include 7 road construction works.

## **7.2 Road-Smoothing Project**

To provide citizens a comfortable, convenient and safe pedestrian and driving environment, the City Government has actively implemented the road-smoothing project. This project has, from 2011 to 2014, allocated NTD1.4 billion budget for the improvement of road surfaces and street appearances of 75 road sections with a total length of 115 kilometers. In 2011, it has completed the improvement of 21 road sections including Dongning Road in Eastern District; in 2012, it has conducted the improvement of 16 road sections including Section 1 of Zhonghua W. Road in South District; in 2013 the project has been implemented for 20 road sections including the Gongyuan Road in North District; and in 2014 the project has been implemented for 18 road sections including the Section 1 Zhongzhen N. Road in Qui Ren District.

Tainan Public Works Bureau has implemented the Road-Smoothing Project since 2011 by selecting important road sections to be improved year by year. Looking forward to the next 4 years, in addition to the original quality requirement of road-smoothing project, the road sections completed in the year before last year and the road sections under the jurisdiction of Directorate General of Highways should be connected to form the complete road network thus perfecting the road quality in Tainan. There will be budgets arranged for the continuation of this project in the future, and it is estimated that a total of NTD 120 million will be required for improvement of road sections with a total area of 1,132,100 square meters, and this will result in sound road service level in the entire Tainan City and greatly improved living standards of all citizens. Tainan City Government is the only administrative agency in the entire country that owns two large asphalt concrete plants (also known as AC plant) for self-production of granular asphalt concrete materials to be used by road surface improvement projects and timely repair of potholes. It is also sufficient for dealing with the emergency repair of road subsidence during typhoon and torrential rain. Most government agencies in Taiwan have delegated road maintenance to private companies and road repair to subcontractors. Supported by the AC plants, Tainan City Government can carry out timely road repair without the need for subcontracting. In addition, there is road repair emergency hotline (06)215-5555 which will be answered by employees in the plants 24 hours a day such that there can be personnel deployed for repair in case of emergency. Therefore, potholes in the city can be taken care of promptly after being reported in order to minimize the occurrence of traffic accidents.

### **7.3 Park constructions**

#### **7.3.1 Promotion of one-park-per-district project**

The constructions of 42 new parks have been completed during the recent 4 years with a total area of 42.7 hectares and the total budget of NTD 213 million. This is for creating the regional urban recreation green land in Tainan such that people get to experience the combination of ecological, conservation, health, literature, and historical landscapes, while enjoying more health spaces. It can only adjust the urban microclimate in the region and reduce the urban heat island effect in order to achieve the sustainable urban development.

#### **7.3.2 Organization of Tainan City Flower Festival**

The Tainan City Flower Festival is an annual event: a total of 700,000 flowers and plants based on 147 species have been shown in the 2012 Tainan City Flower Festival which has drawn as many as 1 million visitors; a total of 800,000 flowers and plants based on more than 150 species have been shown in the 2013 Tainan City Flower Festival which drew more than 1.41 million visitors; the 2014 Tainan City Flower Festival features the 3D floral landscaping allowing the combination of ecology and artworks in the park in addition to the huge flower garden containing a total of 900,000 flowers and plants based on more than 160

species such that it has drawn more than 1.6 million visitors. The total visitors of this Festival during the time span of 2012~2014 topped 4 million.

In addition, the site of 2015 Tainan City Flower Festival is based on a brand new idea of “Flowers Everywhere in the City”. Other than the original sites of Nan Ying City Park of Beating Heart in Xinying District and Jiali Park in Jiali District, this Festival will also be held in Multi-purpose Sports Park in Liuja District and Sigang Central Park, and in Shui Jiao She Park and Shui Ping Wen Park in downtown Tainan. There will also be flowers displayed on the central divider islands along HSR access roads and some of the urban roads. With increased exhibition area, every park will be decorated by more than 100 species of flowers and plants blended with local features such that all returning travelers can experience the cultural customs while enjoying the reunion atmosphere.

#### 7.4 Covered Passageway Clearance Project

Tainan City is already an aging city, and the aging of its population is obviously getting worse along with the decreasing birth rate. Therefore, providing a suitable environment for elderly, disabled, and children becomes increasingly important. In an urban scale, various factors have been drawing more and more attention, such as the linkage among various spaces, the quality of “pedestrian” environment, and accessible environment. The goal is to provide users with a friendly and safe pedestrian environment, which can be achieved and improved via the effective strategy of covered passageway clearance of this city.

In the “Covered Passageway Clearance Project”, a space of 1.5 meters will be reserved for pedestrians, and obstacles (such as cars and motorcycles parked in the passageway, merchant cabinets, potted plants, iron doors, and solid walls) will be reduced in order to achieve the principle of space clearance. And then the ground leveling in the covered passageway will be implemented to create the continuous and friendly urban street pedestrian environment.

For the promotion of Covered Passageway Clearance Project and providing elderly, disabled, and children with an accessible and friendlier pedestrian space, many “The First Ever in Taiwan” innovative measures have been taken in terms of promotional ideas, promotional approach, and subsequent implementation. The overall project has been awarded with “2014 The Sixth Taiwan Health and Age-Friendly City–Innovative Achievement of Accessibility Award” for an accessible and safe public space. The content of this project is described below:

- 7.4.1 In terms of promotional idea: in response to the merchants’ development and the respect to habits, this Covered Passageway Clearance Project is also based on two main objectives: “One is to ensure pedestrian safety; the other is to ensure the profits of merchants”. The creation of accessible pedestrian space based on the spirit of “universal design” can provide elderly, disabled, and general public with a safety environment for “walking”, and it will also lead to the crowd which bring money and further attract

more tourists thus driving the urban development. The analysis on the past failure in promoting covered passageway clearance project has revealed the causes of not respecting and understanding the living habits of citizens, nor considering the meanings behind various different needs, which have resulted in the lack of support by local residents. Therefore, the “Covered Passageway Clearance Project” developed by the City Government this time starts from the humanity perspective with respect over both habits and reform, and it replaces coercive measures with more flexible measures.

7.4.2 In terms of promotional approach: this project is promoted by the top-down “priority demonstration area” and the bottom-up “friendly covered passageway competition”.

7.4.2.1 The promotion of priority demonstration areas: after being reviewed by the 78<sup>th</sup> municipal meeting on August 22<sup>nd</sup> 2012, the covered passageway clearance project of this city was officially launched during a press conference held by the mayor on December 19<sup>th</sup>. The covered passageway clearance project starts from the humanity perspective based on the respect for citizens’ living habits and the merchants’ operation needs, and there are five locations among historical monuments and commercial districts selected as the priority demonstration areas. There are five agencies responsible for the communication and advocacy of these five areas, such as “Beimen Road in front of the Station”(Public Works Bureau), “Chihkan Cultural Park”(West Central District Office), “Confucius Temple Cultural Park”(Cultural Affairs Bureau), “NCKU Commercial District”(Economic Development Bureau), and “Fort Anping Street”(Anping District Office). There are 26 demonstration areas announced by City Government since May 14<sup>th</sup> 2014.

7.4.2.2 The promotion of friendly covered passageway competition: the promotion of coverage passageway clearance project can be difficult without the support by local residents. Therefore, in addition to the top-down promotion of priority demonstration area, we have also promoted the “friendly covered passageway competition”. The expectation of this competition is to utilize the community construction force and introduce independent force to create friendly and clean household and community spaces for pedestrians.

7.4.2.3 The competition is held based on the concept of “Walking Friendly Street”, where 2-3 villages are selected from each district to participate in this competition. Various local private organizations (communities and business organizations) in the neighborhood of major business circle, historical monuments, and commercial district are encouraged to select specific streets to participate in this competition. The assessment is based on “online voting” and “expert evaluation” with focuses on the aspects of pedestrian space, clearance, and cleanliness. The objective of this project is to return the right of way to pedestrians.

7.4.2.4 The excellent results of covered passageway clearance project in 2013 and 2014 have awakened the local forces of residents voluntarily participating in the “friendly covered passageway competition”. In 2013 there were 63 road sections participating in this competition, which included the Beimen Road Business Circle in North District and NCKU business circle in Eastern District. In 2014 there were 60 road sections participating in this competition. The Mayor delivers the incentive fund in person during the award press conference in each year, and the high quality covered passageway clearance sections will be selected as the demonstration road sections for promotional purpose.

## **7.5 Awards of Construction Projects**

The construction budget of Tainan City is far less than those of Taipei and Kaohsiung; such that Tainan Public Works Bureau always carefully spends every penny of the limited budget. A lot has been achieved during the past four years, including: the bridge repair service of Tainan City has won the Golden Road Award for 6 consecutive years since its establishment; the urban road maintenance service management performance has been ranked among the top 3 for 7~8 consecutive years, and it has been ranked number 1 in the entire nation in 2012. The evaluation of public facility pipeline database management and supply system has also been ranked number 3 in the entire nation in 2013.

Other major awards include 53 nationwide business appraisal awards, 50 construction competition awards such as FIABCI-Taiwan Real Estate Excellence Awards and Architectural Landscape Awards. As for the international awards, the Jiali Park Improvement Construction Project was awarded with 2013 The International Awards for Livable Communities, and the Tainan Historical Waterscape Park Lake Port Connection Project was awarded with 2013 FIABCI Prix d'Excellence Awards. The awards of important constructions are as shown below:

7.5.1 Architectural Landscape Awards: there are a total of 5 construction projects granted with this award.

- 7.5.2 FIABCI-Taiwan Real Estate Excellence Awards: there are a total of 37 construction projects granted with this award, including 1 special award and 9 golden quality awards.
- 7.5.3 FIABCI Prix d 'Excellence Awards: Anping Harbor National Historical Park - Historical Waterscape Park Lake Port Connection Project is awarded with Environmental (Restoration and Conservation) Silver Award.
- 7.5.4 2013 The International Awards for Livable Communities: Jiali District Zhongshan Park Improvement Project is awarded with Sustainable Environment Program Award – Bronze Quality Award.
- 7.5.5 Health and Age-Friendly City Award: there are 3 construction projects and 1 covered passageway clearance project granted with this award; 4 projects granted with this award in total.
- 7.5.6 National Safety Gold Award: “Bridge Construction Project across Luerhmen Creek” (Bicycle bridge construction project) “Excellence” (The First Prize).
- 7.5.7 The 14<sup>th</sup> Public Construction Golden Quality Award: Road Construction Project of Extending National Freeway No. 8 STSP Access Roads to Provincial Highway No. 1 is awarded with Excellent Work Award in the civil engineering category.

#### **Bureau of Environmental Protection**

We are pleased that in the past two years, under the cooperation of the Tainan citizens and our colleagues, the reputable Taiwan Environment Protection NGO (Non – Government - Organization), Conservation Mother Foundation announced that Tainan City is the best cleanest city in Taiwan.

Tainan Government considers that human resource is limited in local government, and environmental issues are various. Therefore, implement environmental works through citizens, promoting long-term environmental volunteer planning in every section in Tainan, in order to solve local environmental issues. Tainan Government can implement relative policy, facing aging-society and attentive environmental issues on the basis of original active foundation, integrating environmental volunteer service, community environment reformation, and the concept of friendly aging city,. Consequently, make benefit from civil environment resource, independently promoting community reformation, enhancing elders interaction. This integrated policy was entitled “Aging environmental volunteers make Tainan’s social impact by discover, develop, deliver project”, and was awarded “2014 6<sup>th</sup> Taiwan Healthy City Aging Innovation Award”.

Due to the inaccurate statement of “Environmental impact statement of the first categories (class B) waste landfill of Yun-Yang Environmental Industry Corporation”, the correctness and credibility of Environmental Impact Assessment (EIA) review was severely violated. After the first meeting of EIA committee of Tainan City Government, the resolution passed in May, 9th 2001

was revoked. Since Environmental Impact Assessment Act has implemented, it's the first time that the EIA resolution was sentenced because of the crime of forging official documents. Meanwhile, it's the first time that EIA resolution was revoked by which committee had passed. This event has deeply affected EIA Act, also embodied the spirit of Environmental Justice.

Anti-idling control. Tainan City Government in 2008 formulated the self-regulation of anti-idling that became the first city in Taiwan to execute the anti-idling policy. In 2011, the EPA followed up this policy and executed in the country. This is not only the pioneer in Taiwan but also the precedent in Asia.

## **Department of Health**

### **7.1 Medicaltour-Tainan**

#### **7.1.1 Tainan contains rich cultural history.**

#### **7.1.2 Its natural environment is composed of beautiful scenery, while Guanzihling Hot Spring is the only mud hot spring in Taiwan.**

#### **7.1.3 The pleasant and warm climate is suitable for traveling and living throughout the year**

Taiwan has developed medical technology, medical cosmetic, and physical examination for many years, especially in Tainan; moreover, the cost of these medical services in Taiwan is only 1/5 of U. S., and 1/2 of Singapore. In 2000, the people of Taiwan ranked second in the world in the National Health Service Appraisal composed by The Economist, second only to Sweden, needless to say, Taiwan's score is higher than U.S., Japan, and other advanced countries. Taiwan is proud to have these advanced medical services and technology which allow its people to live healthy, happy lives.

Taiwan has established an international reputation for craniofacial surgery, liver transplantation, cardiovascular therapy, assisted reproductive technology, joint replacement surgery and many other procedures. Thus many overseas patients come to Taiwan seeking treatment every year. To develop medical services at such a high international standard, the government actively promotes a number of hospitals to apply for relevant certification of International Medical Service.

Tainan mayor Cing-De Lai fully supports medical tourism, so we make the effort to make our city become a healthy city that is the top of the world. We hope that tourists will not only appreciate the beauty of Tainan, but also enjoy the high standard of medical services. Mayor Lai also points out that just like the Black-faced Spoonbill, which spends their winter in Tainan every year; he hopes that international tourists will develop the habits of regularly visiting the sunny Tainan every year. For the purpose of health medical tourism, wishing to make Tainan become part of the countries where can conduct physical examination and go sightseeing in the winters.

### **7.2 Medicaltour-Tainan**

These brought an urgent long-term care needs, especially to the remote area aged residents. Tainan decided to construct a Telecare project to promote a long-term care services.

Target clients of “Telecare Project” are elderly residents. The service is mainly aimed at those patients diagnosed with diabetes, hypertension or hyperlipidemia.

Telecare project provide three core Service including:

- Tele-physiological monitoring: Apart from the vital signs measurement and caring, Telecare center also provide in-home cases home visits and community health education.
- Member Health Management: provide information systems that can track member’s health status and keep personal health records in cloud.
- Emergency services: when member has emergency needs can assist provides emergency processing, as called ambulance, and notification family

Through information and communication technology integrate the member’s health information and service resources to serve the people of Tainan.

Providing a variety of services to high-risk gestation women, let them get immediate and convenient care at home. Puerperal rehabilitation and newborn care-related issues can be assisted by professions to provide better care. And promote experience sharing and exchange between the cases.

Based on fulfill the healthcare of Tainan residents, building Telecare services through application of information technology, breaking geographical, temporal and spatial restrictions to establish healthy living, Tainan Telecare Service platform assisting chronic disease management and preventive health management, improve the quality of health management, expect to bring genuine concern and care to every Tainan City residents.

#### **Bureau of Economic Development**

To make Tainan develop toward modern city, we plan to position the city as “Cultural Capital, Low Carbon City, Technological New Town, and Sightseeing Paradise”.

To response to the overall trends in the consuming environment and promote the commercial developments of Tainan, the city government establishes the strategies for commercial developments, and we inventory, integrate, and counsel the featured commercial circles in Tainan to enhance commercial competitiveness and construct excellent consuming environment. For example, we held the selection of a hundred good stores in Tainan. This is an innovative way out of traditional commercial counseling, which can have effects on both counseling and marketing. Meanwhile, we can invest the minimum budgets and create maximum benefits. In four years, we indirectly counsel 1,220 stores and directly counsel 507 stores as a hundred good stores to enhance service quality and improve shopping environments. We earned the budgets from the central government in 40 million dollars for 3 years to promote modernized commerciality for establishing Great Tainan and Middle-West District becoming internationalized cultural leisure service areas. We develop industrial

sightseeing provided with local features and utilize communication technologies to build guidance in multiple languages, information platform, and combine vendors for marketing together. The demonstrative area in Middle-West District in 2014 has millions of visitors.

Meanwhile, the results of the commercial developments and the city marketing are promoted together to hold large commercial activities for stimulating consuming and activating commercial opportunities, such as Tainan Shopping Festival, Tainan Commercial Exhibition, and Chinese New Year Shopping Street. In four years, the total participants are more than millions, and the revenue is up to 4 billion dollars. The Shopping Festival in this year has broken 1.5 billion dollars. It makes Tainan become spot focus and attract people to this cultural ancient capital and new technological town. People can experience the simple beauty of the commercial circles and the landscape of mountains in Tainan, emerging in the mild happiness in the cultural ancient capital.

The excellent investment environments and advantageous industrial aggregations in Tainan attract many domestic and foreign vendors to invest. Since the merge of the city and the county to the end of December 2014, there have been totally 1,119 investment cases in the amount of 835.3 billion dollars, and the output value in 1455.6 billion dollars is created. 67,361 job opportunities are increased. The achievement of investment is bright.

To attract foreign vendors to invest in Tainan, Tainan Technological Industrial Park has a "TJ Park". There have been many Japanese enterprises entering in this area. In recent, the city government team actively invites vendors as potential targets, such as Taiwanese vendors in oversea, European vendors, American vendors, Japanese vendors, and domestic major vendors. There have been domestic and foreign vendors investing Tainan, such as Taiwan Ta-wu, Hitachi Chemical, Miura Boiler, Taiwan Tung Te, Anson Technology, Gudeng, and Xia Xing.

In the future, the city government will continuously improve administrative efficiencies and enhance the single window service for global investors. We will subjectively help to remove the obstacles for vendors to investments and provide serial services in suit with dedicated contact, responsible, and project to build good investment environments for facilitating more investments by domestic and foreign investors in Tainan.

- 8 What do you see as being the most challenging issues that need to be addressed in the immediate future?

#### **Research, Development, and Evaluation Committee**

Transparency, participation and collaboration are the main principles of Open Government, and these are also the main principles of administration in Tainan. Open government is an important issue for Tainan City Government. We hope that citizens are allowed to access the documents and proceedings of the government, and everyone in Tainan could be involved in the management and

development of Tainan. Through the Transparency and Participation, effects of Accountability, Efficiency, and Anti-corruption will be significant and will bring benefits for people in Tainan.

### **Department of Information and International Relations**

The only city name known by most visitors is Taipei. In recent years, we have started holding international events such as the Nanying International Folklore Festival and the International Orchid Show. We have also promoted city diplomacy by signing sister cities agreements and winning a bid to hold International Baseball Federation games. In the future, our main task is to build on this foundation and reach new heights that will give our city international exposure. We hope that people will start seeing Tainan in a different light.

### **Bureau of Education**

In the immediate future, the most challenging issue in Tainan City is Mayor Lai's policy "English as the Second Official Language." In education part, Bureau of Education administers many measures to achieve this goal.

From the aspect of learning mechanism, the Bureau fosters the private management of public school, and encourages bilingual schools. To help students get authentic language use, the bureau hires foreign native language teachers, forms Bo-ai English Village for students' English Camp, and purchases English vans for students in the country. Great amount of budget is passed to supplement English education.

From the aspect of teachers, many ways are done to enhance teachers' professions. Teachers are encouraged to pass the GEPT (General English Proficiency Test). Also, they are encouraged to form English study societies. To help students get more comprehensive target language input, teachers that use whole-English as communication language in the class are also greatly encouraged.

From the aspect of students, the Bureau holds many English-related activities to help students enhance their English proficiency. Some schools provide chances for students to study abroad. Some schools promote International Exchange for students to be familiar with foreign cultures. They might have foreign sister schools or accept International volunteers at schools. Besides, many English-related competitions are held for students, such as English storytelling, English reader's theater, and 12U Student Baseball Volunteers selection.

All these measures are done to achieve the policy. If we go on doing so, we are confident that we can attain this goal in the near future.

### **Bureau Cultural Affairs**

Issues on Preservation of Cultural Heritages

Issue on Cultural Budget of City

Issues on Consensus of City Development in all aspects

## **Bureau of Urban Development**

- 8.1 Responding to global climate change and disaster prevention.
- 8.2 Conducting comprehensive watershed management and flood prevention for low-lying areas, with the aim of making Greater Tainan safe
- 8.3 Formulating local industry development strategies and strengthening the relationship between regional industries; fostering innovation based on Tainan's special characteristics
- 8.4 Breaking down existing barriers between the old city and county regions to build a convenient transit system
- 8.5 Reviewing land use plans on all levels to establish overall priorities for development's

## **Bureau of Transportation**

### **8.1 Advanced Public Transportation System :**

To take account of the whole development in Tainan City and the major public works plan in the future, The Tainan City Advanced Public Transportation System Feasibility Evaluation and Pilot Planning are in progress. The plan will be considered the complete current travel trips and the neighboring tourist attractions by Rapid Transit TRA, and aim at three core area (Sinying, Shanhua and Fu-Cheng) to do the comprehensive planning.

Advanced Public Transportation System Network will be with TRA principal axis, introduce three elevated light rapid transit and upgrade six trunk lines step by step. In the next four years, we will start the first advanced public transportation system, which will be promoted to form convenient transportation in Tainan.

### **8.2 Smarter Cities Challenge, Build up “Tainan Smart Traffic Center (TSTC)” :**

IBM consultant group chose Tainan city to join the “Smarter Cities Challenge” plan on 2014. According to the plan, Tainan city government is devoted to build up “Tainan Smart Traffic Center (TSTC)” to improve traffic better. The function of TSTC will include the fields of traffic controller, commuting technology to gather information, parking management, immediate reaction of traffic incidents and public transportation management. If TSTC build up, it will provide extensive information to make the traffic in Tainan smoother and easier.

### **8.3 Parking management policy :**

In order to improve Tainan city overall parking supply and demand problem, our parking management policy is take "to give then request back" concept, through the promotion of “parking orderly” plan and available to carry out an inventory of public and private for increase parking supply. We also review of the existing parking control way and implement measures to expand parking charges for manage parking demand. Our parking spaces are from 57,362 seats in 2010 to 75,541 seats in 2014, growth rate of 32%.

In addition, to effectively regulate the city's parking order, we handle related civil towing jobs to regulate behavior by passers-by stop and straighten the city parking order.

#### 8.4 The construction of Public Bike sharing system (the T-Bike)

The initial goal of public Bike sharing system in Tainan is to satisfy the demand in tourist area. The Tourism Bureau set up 3 stations at 2 locations in Anping area, with 60 bikes for rent.

To promote people riding bikes as short distance connection vehicle, it is hoped that by means of public transportation system and bike route network with bike rental station service we can encourage people to use less polluting, energy-consuming public bikes as shuttle vehicle, reducing and transferring the holding and use of private motor vehicles in order to achieve improvement in urban traffic congestion, environmental pollution, energy consumption and to complete "the last mile" of public transportation for service purpose. Later this year, Bureau of Transportation will implement the program of "Tainan Public Bike Sharing System.(T-Bike)" With detail planning, a suitable system for Tainan will be established. In the beginning, 30 demonstrative stations will be built, before extending to 300 stations all over the city in the near future.

### **Bureau of Civil Affairs**

#### 8.1 Administrative District Merger

The merger of the 37 administrative districts in Tainan City involves supporting act—the Administrative Division Act has not been legislated. For service quality improvement and effective use of administrative resources, the city government has started the staffing work to discuss the possibility of all possible plans and listen to local opinion for the reference of future initiation. In the future, administration division will be implemented (1) progressively instead of a one-step matter; (2) bottom-up to respect public opinion and local culture; and (3) by constituency stabilization to avoid unnecessary troubles from constituency change.

#### 8.2 Temple Fair Optimization

Tainan City has many religious groups. Each temple has many worshippers who exchange frequently, thus forming a unique religious culture of Tainan. Religious group guidance has always been a focus of the city's policy. To achieve living quality improvement and religious tradition preservation at the same time, the city government has been guiding religious groups to change the manner of temple fairs to minimize impacts on the public life, so as to maintain a balance between religious tradition preservation and urban living quality improvement.

## **Bureau of Labor Affairs**

### **8.1 Establish disabilities manpower bank database**

Tainan City Government Labor Affairs Bureau made questionnaire interviews for Tainan disabilities from 15 to 65 years old, understanding their employment situation, and made ability analyze, construct manpower bank database belongs to disabilities, in order to promote the matchmaking of business or manufacturers with disabilities, and related services to assist employment.

8.1.1 2013 annual visits from 20 to 35 years old disabilities 6,000 people.

8.1.2 2014 annual visits from 36 to 50 years old disabilities 8,000 people.

8.1.3 2015 annual visit object for 21 to 22 years old and 51-65 years old disabilities 10,000 people.

In addition to input data matchmaking employment, develop job vacancy continuously and provide employment matchmaking information to the object ear's respondents did not object who is not visited on 2015.

## **Bureau of Water Resource**

The threat of short duration and high intensity rainfall caused by Climate Change.

## **Bureau of Public Works**

### **8.1 The Yongkang Army Missile and Artillery School Relocation and Development Project**

After the merger and upgrade of Tainan City and Tainan County, the Yongkang District is the one with the largest population and the most rapid development. However, the original planning was not a perfect solution for the rapid growth of population in Yongkang such that there remains room for improvement over the quality of lives of citizens. The original plan was designated for the Yongkang City, thus it can hardly meet the development requirement of the most important metropolitan area after the merger of greater Tainan. The purpose of relocation of Yongkang Army Missile and Artillery School to Kuanmiao is for providing the important future development area of The Greater Tainan with a new development opportunity.

After this project was approved by the Urban Planning Committee of Ministry of the Interior on January 29<sup>th</sup> 2008, the major obstacle for the promotion of this project is the interest burden. For speeding up the development and construction of Yongkang, the Director of Tainan Public Works Bureau Zhong-Rong Wu and other supervisors of relevant organizations joined Tainan City Mayor William Lai for visiting Premier Wu Den-yih on June 24<sup>th</sup> 2011, and the Executive Yuan agreed to subsidize this project with the interest amount of NTD 540 million in 6 years to solve the greatest difficulty in promoting this project. The Tainan City Government has signed the Memorandum of Understanding with Ministry of National Defense on September 12<sup>th</sup> 2012 and has been actively launching several construction projects and land acquisition operations.

The majority of the original around 80 hectares site in Yongkang Army Missile and Artillery School will be used to build a cultural and creative park and there will be space reserved for a 16-hectare Commerce and Trade Park and 15 hectares for park. This area will become a huge park for cultural and creative industries, commerce and trade, and leisure and recreation in the future, and it is going to be a very important development for the entire greater Tainan. Besides, residents of Kuanmiao has been expecting a major construction all along, and the relocation of Yongkang Army Missile and Artillery School and the 3,000 faculties and students could lead to substantial growth of local development and consumptions, thus contributing to local industrial growth and land development. The implementation of major construction items of the Yongkang Army Missile and Artillery School Relocation and Development Project are as shown below:

8.1.1 Phase 1 of Public Works Projects of Yongkang Campus is expected to be completed by August 2018 (Land Office)

8.1.2 Phase 2 of Public Works Projects of Yongkang Campus is expected to be completed by February 2021 (Land Office)

8.1.3 The Kuanmiao Campus Access Road Construction Project is expected to be completed by July 2018

8.1.4 The Construction of Kuanmiao Campus is expected to be completed by December 2018

8.1.5 The Construction of Xinhushan Training Yard is expected to be completed by December 2018

## 8.2 The Pingshi Camp-Central Park Reconstruction Project

The Pingshi Camp is located at the intersection of Eastern District and Yongkang District. In early days Pingshi Camp is stationed by Army 54 Engineers Group as a confined military land; the population of military community has been doubled after more than 40 years of development such that the living environment has been insufficient even after several expansion constructions, and the houses are getting inferior and obsolete. Therefore, Tainan Public Works Bureau established the cooperation mechanism with Ministry of National Defense since 2002 and with the innovative overall planning supported by Ministry of National Defense, whereas the modification of urban planning has been implemented to reach the multiple-win situation of increased public facilities in urban area, enhanced value of military land, and improvement on overall living environment.

Among them, the Pingshi Camp Central Park Construction Project with a budget of NTD 129 million is located south east to the intersection of Siaodong Road and Zhonghwa East Road in Tainan City. There are residential areas on the north and south sides of the Park, Ambassador Theatres Business Circle on the west side of the Park, and Dream Mall on the south west corner of the Park. This park shall meet the demand for park green land of the planned population of 5,000 in the development area and the 20,000 residents in Eastern and

Yongkang District. It is expected to be built as a low-carbon, ecological, and environmental friendly park with the optimal space allocation in conjunction with the utilization of surrounding lands. After the completion of this project, it can serve as a venue for coherence of community consensus and creation of urban subjects, and a place for various activities such as large metropolitan performance, cultural and creative markets, and old tree ecological educational activities.

Brief introduction of the project:

8.2.1 The total area of the base of park to be developed is around 7 hectares, and the total construction project amount is around NTD 120 million.

8.2.2 The subcontracting operation is completed, and the construction is expected to be completed by December 2016.

### 8.3 Asian Pacific International Baseball Training Center

It is for the establishment of the 10 major flagship projects of greater Tainan – investment in greater Tainan— introducing private funds and promoting public constructions— Asian Pacific International Baseball Training Center Construction Project.

The total budget of this project is around NTD 1.747 billion with the base area of 30.27 hectares. A complex baseball training center is expected to be built in Annan District including a standard baseball stadium with the capacity of 25,000, an auxiliary baseball stadium, two practice fields meeting the little league games specifications, an indoor training field, conference rooms, baseball museum, sports industry exhibition center, hotel, restaurant, and other auxiliary facilities.

Currently the plan is to delegate the project management to a certain capable contractor. The project is expected to be completed by the end of 2018 with the benefits as shown below:

8.3.1 It can be used for the trainings, competitions, and advanced coach trainings of domestic baseball teams of all levels.

8.3.2 It can be used as the base for offsite training of foreign baseball teams.

8.3.3 It can host professional baseball games (including CPBL and MLB games).

8.3.4 It can be used to hold workshops, baseball industrial seminars, and international baseball competitions at all levels.

### 8.4 The challenge of Handling of illegal building

In light of the lack of building related laws and regulations among some people who take the illegal buildings for granted thus leading to repeated violations of laws and causing threat over public safety, Tainan Public Works Bureau has implemented the new policy in which the illegal buildings reaching certain scales will be demolished with priority since January 1<sup>st</sup> 2015 in order to eradicate the rising trend of illegal buildings.

The statistics show that currently there are more than 80,000 illegal buildings in Tainan City, and there are 26,259 reported cases waiting to be demolished, 3,766

of which are new illegal buildings. Illegal buildings will not only affect urban landscape, but also endanger public safety. Therefore, the new illegal buildings reaching the four scales as shown below will be demolished with priority since January 1<sup>st</sup> 2015. The management of the source of illegal buildings will be tightened based on the principle of "Preventing illegal buildings from happening is more important than demolishing them".

8.4.1 First category of statutory covered passageway illegal building blocking the access by pedestrians;

8.4.2 Second category of statutory vacant land illegal building with horizontal expansion of over 30 square meters, vertical expansion of over 4.2 meters or 1 floor, or the fire partition of the public building is completely block thus preventing evacuation;

8.4.3 Third category of rooftop illegal building with vertical expansion of over 1 floor or 3.6 meters;

8.4.4 Fourth category of private road and turning lane blocking the vehicle.

#### **Bureau of Environmental Protection**

About this question, the Conservation Mother Foundation has positive recognized the procedure of Tainan Environment Management, but they also pointed out that there some mess locations were supposed to be improved by the new and effective implementations. This is an important and serious issue and now, we are trying to establish the appropriate way to resolve that.

The PM2.5 control. Although our city had improvement of PM2.5 for the past few years, it failed to reach the air quality standards of the 24-hour value (35 µg/m<sup>3</sup>) and the annual average value (15 µg/m<sup>3</sup>). For this reason, development and impetus of relevant control work is the most important work to improve the air quality in Tainan City.

#### **Department of Health**

The City Council at the integration of cross-team action jointly safeguards food safety, to prevent health hazards.

Recent food safety incidents of success, food is an important issue to people's livelihood, the Tainan known as "Food of the Kingdom," said Tainan City Lai Qingde except public health importance, but more concerned about food safety, in addition to the policy of the central Ministry of Health and Welfare with the implementation of the handle, "food industry Login system ", but also special instructions health Bureau, the Economic Development Board, the Environmental Protection Agency, Bureau of Agriculture, Education, legal Department, Information Services Department, police Department and the Consumer Protection Board officials and other 9 11 was founded in 102 years," Tainan inter-bureau joint inspection team at food security ", the monthly handling joint inspection every three months working group meeting was held, food safety incidents are ready for a meeting.

Mayor Lai also mentioned the Tainan agriculture and culture as the foundation to create demand, there are hundreds of good shops there are many excellent

agricultural products, the Economic Development Board should be strengthened food-related industry factories, companies, business registration information of the investigation report, the Bureau of Agriculture should be established ingredients and product traceability system of record system, EDB strictly campus food, EPA toxic waste flow control and health authorities should take the initiative grading inspection sampling and testing management. In an inter-bureau at the upstream and downstream joint inspection, a common defense of food safety and prevent health hazards.

Action team to fully integrate the city to construct the city's food safety environment, and the establishment of food safety protection hotline: 0800-285-000 and Consumer Protection Line 1950, providing consulting services related to public food safety, while at the City website build "food Safety zone" to provide the latest information transparency for the public inquiry qualified and unqualified food safety messages so that people feel at ease, but also the public and the government hopes to establish partnerships, we move up the construction of the food safety net, and create a healthy and happy Tainan.

#### **Bureau of Economic Development**

To prevent marginalized from international and enhance the free trade internationally, Taiwan needs to actively take part of the local economic integration.

##### **8.1 Final judgment of antidumping for solar panel**

International Trade Committee (ITC) formally determined by vote on January 21th, 2015 that China and Taiwan have been dumping solar energy products. China will be taxed in accordance with the original tax scope for antidumping and countervailing duty. Taiwan will be taxed for antidumping. This new case for antidumping and countervailing duty among China, Taiwan, and U.S. is thus settled down. The implementation of the related tax rate will be in February.

The final judgment by International Trade Committee against China and Taiwan in terms of solar panels for antidumping and countervailing duty is concluded. It is determined the case is established. The solar batteries sold by China and Taiwan will be harmful to the domestic industries in U.S.; therefore, the related tax rate will be implemented. Taiwanese vendors are disappointed that the case is established. For this, vendors now point out that the results of the final judgment meet the expectation. On the other hand, Solar Power Institute is planning to raise an administrative review to fight for lowering tax rate. For this, most vendors pointed out the results of the final judgment meet the expectation. Motech said the company has responded accordingly in the last year. The ratio of export directly to U.S. is low, and the influence is limited.

##### **8.2 Low Oil Price Era How to encourage and develop substitute energy?**

The analysis of Bloomberg News points out the consumers and the manufacturing industries are happy about the low oil price, which is almost equivalent to tax cut, especially for western consumers. Meanwhile, some

governments are also happy about low oil price, especially European governments that tax oil. The low oil price can stimulate consuming and reduce the cost of manufacturing industries. It is stimulation to the long recession in the market. In addition, for low income family, energy expense is huge. The low oil price can moderate the tense in the society due to the inequity in terms of income, wealth, and opportunity.

However, low oil price also has many negative impacts. What bear the brunt are the budget cuts on the investments by energy enterprises. It drags down the developments of the technologies for substitute energy. As for the countries that import oil, low oil price may suppress inflation; however, it also put Europe in risk of deflation. Third, low oil price will make some financial markets in risk. The drop of oil price will devastate commodity markets. This may also threat the energy enterprises and oil exporters.

## 9 What do you want the world to know about your city?

Research, Development, and Evaluation Committee

9.1 Tainan, the first city in Taiwan, has cultural histories and is rich in humanity properties. It is better to know Tainan first if you want to know something about Taiwan. Take the Kyoto as an example, Yasunari Kawabata, who was awarded Nobel Prize for Literature in 1968, has said that “Kyoto is my hometown, and it is also the hometown for all Japanese.” We hope that people around the world will know that “Tainan is the capital of culture, and it is the hometown for people in Taiwan.”

### **Department of Information and International Relations**

In the words of Tainan writer Mr. Yeh Shih-tao, “Tainan is a place well-suited to dreaming, working, falling in love, getting married and living a leisurely life.” Tainan’s pleasant climate and moderate pace of life have given it a reputation of Taiwan’s most livable cities. We are striving to maintain a balance between cultural preservation and city development. We hope that we can build a happy city in which young people see a bright future, those in the prime of life fulfill their dreams, seniors feel happiness and the disadvantaged are well taken care of. Moreover, we want the citizens of Tainan to be proud of their city.

### **Bureau of Education**

Hu-shang Elementary School: Eco-School and A Paradise of Exploration for Kids

Hu-shan Elementary School was founded in 1915; it is 96 years old now. There are seven classes (122 students) in total in the school. No communities for residents locate in an area of 1km diameter around the school. Instead, what can be seen is a one-hundred-ha forest with multi-faces, which has gifted the school a greenery surroundings with fragrance of flowers and sounds of bird-chirping. It is a rather beautiful eco-school. Moreover, the hundred-year-old Ren-de Sugar Refinery, historically-reserved Bao-an Train Station, Tainan Metropolis Park, and the about-to-open New Chi-mei Museum are right nearby this school.

Hu-shan Elementary School takes full advantage of the forest ecology to develop stand featured programs. Following the positively affirmed achievement, the schools invited Jane Goodall, the Peace Messenger of UN, to the school to plant trees and tell the school kids stories. Due to the outstanding development, Hu-shan Elementary School was evaluated as one of the 100 Nationally Excellent Eco-education Program School in 2012 and furthermore received National Award of Sustainable Development in 2013.

Hu-shan Elementary School took part in an international eco-school project, according which short-term, mid-term, and long-term developing programs have been set to match with the features of the school, community, and eco-surroundings. With these programs, the school created a campus with multi-pattern eco-surroundings with the idea of symbiosis of interest. Permeable pavement, red brick trail, benches made by recycled round logs, grass runway, green fences, hydroponic vegetables, building organic happy farms, constructing space of aesthetics are vivid evidences of fulfilling the idea. These actions successfully made the permeability of the school reach up to 85% and the rate of greenly covered are over 78%. In the field of daily eco-practices, policies of implementing minimizing garbage, making fertilizer out of fallen leaves, scheduling a vegetable lunch once a week have been taken. The school also endeavors to promote treasuring water resources, joining in water quality monitoring, and carrying out 3R (reuse, recycle, and reduce) spirit.

Multi-teaching-activities and environment programs have been employed to cultivate conceptions of sustainable development; for example, trees are planted by students, teachers, and parents, each tree is adopted by one member of the school, an eco-pond has been constructed by school kids and teachers together, NGO (nongovernment organization) and resources are introduced, environmental activities are held, community residents and retired school staffs are assembled into an environment protection volunteer group, a trip of protecting water resources is taken, little environment protection rangers are organized, an internet contest for carbon reducing experts is conducted. Additionally, we also constantly participate in environment education research programs to promote our school as an eco-school with multi-level ecological environment, helping species to grow prosperously and making our school a paradise of exploration for kids and the education center for sustainable development for nearby communities.

### **Bureau of Agriculture**

The Taiwan International Orchid Exhibition is one of 3 World Orchid Exhibitions. Taiwan International Orchid Show held annually in Taiwan Orchid Biotechnology Park. The exhibition combined with orchid industry, features Cuisine, tourism, cultural and creative art and technology, environmental protection, and each year attracts many countries, a large number of flower experts and buyers to Taiwan to observe and exchange, in addition to marketing Tainan international orchid Exhibition delicate orchid farming, but also

marketing Tainan tourism industry, cultural and creative industries and biotechnology industries. Next orchid show will sustain organize, and the exhibition has higher quality than last show, so orchid industry, the tourism industry, cultural and creative industries and biotechnology industries to flourish.

### **Bureau of Urban Development**

- 9.1 Industry development: Current development and future vision for industrial parks
- 9.2 Cultural capital: Cultural parks and intangible cultural assets
- 9.3 Rich ecological resources and amazing sights
- 9.4 New urban attractions: Yuejin Harbor renovation, Xinhua Old Street, Xiaying Lord's Temple Street, Baoan Station renovation, Qiding Old Street in Longqi, Xiaonanhai waterfront in Houbi, Anping Old Street, cultural parks, etc.

### **Bureau of Civil Affairs**

#### Yanshui Beehive Fireworks Festival

The festival is an important folk and tourism event during Lantern Festival. It began during July to August in 1885 when cholera and a plague in Yenshui caused many casualties due to medical underdevelopment. Frightened citizens prayed to Guansheng Dijun to expel the plague. On the night of Lantern Festival, the deity ordered General Cang Zhou to take the lead with the deity's sedan behind. Believers set off firecrackers after the sedan touring around the area to expel the evil. The brilliance of the Yanshui Beehive Fireworks Festival is comparable to the carnival in Rio. In the night of Lantern Festival, local shops set off beehive fireworks as the deity's sedan passes by, and the ancient town is filled with the blast of firecrackers, which light up the night in different colors and splendor.

### **Bureau of Tourism**

- 9.1 The sunrise in Erliao: Erliao is the best spot to see the sunrise because of its proximity to the downtown, and the longest sunrise seeing spot. At dawn, the mist rises and the sunrise shows up like the cloud sea. It is also the lowest spot to watch the cloud sea.
- 9.2 Sihcao Taijiang National Park: There are many precious mangroves and green tunnel woven by mangroves. In recent years, Sihcao Dajhong Temple and Mangroves Conservation Society provide tourists with a tour on the raft to enjoy the beauty of mangroves.
- 9.3 Qigu Black-faced Spoonbill Reserve: The black-faced Spoonbills are regarded as endangered birds. They gather in the Qigu wetland near the month of Tsengwen River. They attract many researchers and bird-watching people. The conserve center is served ad Black-faced Spoonbill research center for local and foreign researchers to conduct research on Black-faced Spoonbills.
- 9.5 Guanzih Hot Spring Scenic Area: Guanzih hot spring is one of the three hot mud springs in the world. It is one of the five best hot springs in Taiwan.

The other four hot springs are as follows: Yanmingshan, Beitou, Sihjhongsi and Jhibben.

- 9.5 Anping: Anping in the origin of Taiwan development. There are many historic spots for tourists to learn the history about Taiwan development.
- 9.6 Delicacy: The delicacy in Tainan is distinctive and outstanding. There are many famous vendors and restaurants regarded as the best ones in Taiwan.
- 9.7 Chimei Museum: The museum is built by the enterpriser Shi Wen-long and donated to Tainan City Government. The collections are the western art works from 13 to 20 centuries. There are rich collections in French paintings and sculptures in the 19th century. The collections included Mosaic art of the Roman Empire, the masterpieces of Renaissance, Baroque, Rococo and New Classic, Romanticism and post-impressionism. There are collections of antique weapons and musical instruments.

### **Bureau of Labor Affairs**

“Eating is the first priority” is the core concept of Mayor Lai. “Not only to give them fishing rods”, what Mr. Lai wants to do more is “to give them finishing farms”. Therefore, the Bureau of Labor Affairs has been actively promoting the sub plan of “Tainan with Love”, one of the plan within “Ten Major Plans for Constructing Tainan”, named “ Lattice Shop with Sunny Days, Brighten Tainan –Employment Service of Disabilities and Disadvantaged Women of Tainan City (Sunny Creativity Dream Workshop and Show Girl) ”.

#### 9.1 Setting up “Sunny Creativity Dream Workshop” –Promotion Platform of Creative Products of Disabilities of Tainan City

9.1.1 Brand establishing: Obtained the first national trademark registration of disabilities on-line shop in Jan. 2013 and created a demonstration location of accessible environment, through the selections activities twice a year, to promote from point to line and plane in order to increase the employment opportunities of disabilities and vocational trainees of Tainan City and to increase the profitability of self-run business.

9.1.2 There have been over 1,200 creations sold through virtual and physical channels and generated over NTD 8.12 million sales since the establishment in Dec. 2011.

#### 9.2 Setting up “Show Girl” – Lattice Shop of Creative Products by New Inhabitants and Disadvantaged Women of Bureau of Labor Affairs, Tainan Government

9.2.1 Brand establishing: Obtained the first national trademark registration of lattice shop for disadvantaged women in Dec. 2013 and provide a platform for new inhabitants, disadvantaged women (disabilities, aged, aboriginals) and vocational trainees to demonstrate their confidence and piece of work.

9.2.2 Through 25 tourist spots and exhibition at City Hall, there has been 79 “Show Girls” been benefited and generated over NTD 4.92 million sales.

## **Bureau of Water Resource**

Shenzhen (Mountain, Ocean, Channel) Greenway.

The greenway is a 45Km long bikeway as riverbank corridor. It connects Taijiang Park, National of History, Wushantou Reservoir and other attractions by using old Chianan Irrigation drainage riverbank. In addition to ecological education and leisure activities, it can serve as a bicycle commuting route to Southern Taiwan Science Park.

## **Bureau of Public Works**

### 9.1 Tainan Park

Now Tainan Public Works Bureau is implementing the sustainable regeneration of "Hundred Year Tainan Park". In addition to the monuments and landscapes of Qing dynasty Zhongdao Chongwen Archway, Park Police Station, and Yan-Tan Pond, there is also a tropical experimental forest planted in Japan Occupation Era in Tainan Park. With a huge variety of tree species, it is the best destination for ecological teaching and an important attraction for citizens to take a walk or enjoy leisure time. 13,000 cubic meters of sludge will be removed at the initial stage of this project, and other water resources will be introduced for Yan-Tan Pond while improving the issue of soil erosion at the slope surrounding Yan Tan Pond. The future development of Tainan Park is heading towards the commemorative, educational, prospective themes, with the hope that the sustainable development can bring Tainan Park to the next hundred years.

### 9.2 The Barclay Memorial Park Expansion Project

After years of efforts made by the region and City Government, the Barclay Memorial Park in the Eastern District of this city has gradually become an eco-park with an abundant ecological environment and a rich diversity of plant. To continue and expand the ecological and leisure environment, the City Government has planned a land sized 5.8 hectares for park in the South Tainan Station sub-city center in Eastern District. This has not only expanded the area of Barclay Memorial Park, but also combined the park with the open space of Chongming Elementary and Junior High School. Together with the Cultural Center on the western side, it has become an urban riverbank eco-park. This project will continue the eco-diversity of Barclay Memorial Park, the art and culture function of Tainan Cultural Center, and the South Tainan Station sub-city center plan to connect the living function of surrounding schools and residential areas. This not only enables citizens to experience another characteristic of the park, but also provides citizens living in the sub-city center around the South Tainan Station a green land for making leisure activities. With a total budget of NTD47.27 million, this project is expected to be completed by December 2014 and the design characteristics of its base include: respecting and preserving the texture of existing water canals to connect the waters and build the landscape; reserving current plants not only to build an unique natural

environment and habitat, but to create an abundant and diversified landscape; bringing the natural characteristics of ecological environment into full play to provide a natural and comfortable resting and leisure space; offering surrounding areas the functions of leisure activities, arts and literature, and education to integrate the community environment and urban space. Besides, “The Barclay Memorial Park Expansion Project” also received the “2011 Taiwan Real Estate Excellence Award - Best Planning and Design Category: Public Construction – Gold Award”.

This expansion project will connect the original park and expanded area to establish a large urban ecological patch in the South Tainan Station sub-city center, to integrate surrounding public areas (lands used for schools, cultural center, arts and cultural activities, and government agencies), to build a metropolitan green space in the region for leisure activities, and to adjust the urban microclimate in the region to minimize the urban heat island effect and form a carbon sink that help achieve the sustainable urban development.

### 9.3 Hukuisu Cuisine Square

The reconstruction of the high class restaurant known as the “Underground Decision Making Center” in 1923, the Hukuisu Cuisine, was completed in July 2013 based on the “Hukuisu Cuisine Square Renovation Project” executed by Tainan Public Works Bureau, and it was officially open on December 24<sup>th</sup> 2013. The major buildings of Hukuisu Cuisine which have been reconstructed include the “Central Building” and kitchen, 1/3 of which have been preserved. As for the public spaces, the ponds, bridges and Japanese-style garden were reproduced according to the original landscape. Even though the second floor of “Central Building” is not open for visitors, the silhouette can be shown by projection lamp to create the image of freely passing of wine cups. People moving along the line of motion through the corridors get to enjoy the beauty of wooden building structures and the exhibits while comparing the present with the past based on those interpretative signs. In addition, after the completion of reconstruction, the Hukuisu Cuisine Square can be combined with the famous attractions of Old Tainan Weather Bureau (Museum of Meteorology) and national historic site of Tainan Meteorological Station to become an emerging tourism zone.

The “Hukuisu Cuisine Square Renovation Project” adopted the approach of preserving original site and exhibiting the combination of current site and original relics to successfully present the elegance and history of original building while establishing the connection between the base and the community via see-through fences. Thus it was awarded the 20<sup>th</sup> Architectural Landscape Awards “Tainan City Public Building and Landscape Choice Award” and the FIABCI-Taiwan Real Estate Excellence Awards of “Special Award for Best Environmental and Cultural Category” in 2014.

### **Department of Health**

Since the strategy of “action Hospital –Health service for All” in Tainan has been implemented from 2003, The residue of specimens , exam reports, surveys about life habits, dietary habits and personal illness history are been collected and reserved following participants signing the consent. These data and specimens grew into a huge mass of database; besides, Tainan city government obtained formal permission to set up Biobank, in the Biobank of Tainan city government name, from Ministry of Health and Welfare on 6 May 2013. The Biobank, the largest bio-database in Taiwan So far, is not only with 400,000 records, 310,000 blood specimens, 580,000 serum specimens and about 50 thousand DNA samples from feces also include data from health and ill groups in communities by December 2014. It provides good use of research, such as public hygiene, preventive medicine, clinical medicine, biotechnology, etc. The associated documents are posted on our website for applicants or research teams use. Also, we are looking forward to applying from other nations and having experience exchange.

### **Bureau of Economic Development**

9.1 Tainan is an abundant place from the point of view of the advantages of cultural features for the city marketing. People can come to Tainan for touring among historic sites, looking for old streets, and shopping in the commercial circles. Roaming among historic sites, tasting local cuisines, and experiencing the living in slow temple at Tainan, this is Tainan.

After hundreds of years through the quenching by time and cultures, the cultural ancient capital is shaped. Tainan has abundant historic sites, well-known local traditional cuisines. There are cultural innovative commodities and featured cuisines deeply hidden in the cultures in alleys and lanes with simple interactions among people, which are the treasures contained in the commercial circles in this city.

No matter the cultural historic sites like An-pin Commercial Circle, Confucius Temple Circle, and Shengnong Old Street, or the fashion stores like Zhongzheng Commercial Circle and Guohwa Yau Oi Commercial Circle, or the restaurants with featured cuisines like Chengkung University Commercial Circle and Haian Commercial Circle, and Guanziling Spring Township, the commercial circles in Tainan have unique scene and taste. The amusements in spring, summer, autumn, and winter are all abundant in terms of food, clothing, accommodation, and entertainment. The cultures with long history make the shopping and travel even more rich and diverse.

The city government promotes the counseling for the commercial circles by understanding the features of local stores and figuring out the positioning for developments from the attractive elements of each commercial circle. The processes in many years for further understanding make us deeply conceive the abundant and diverse stories hidden in this city, as well as the meanings of deep experience in travel. We expect your coming and recommend your families and friends to come to Tainan for shopping in commercial circle, visiting historic

site, touring the old streets, tasting the local featured cuisines, and feeling the living style in Tainan.

9.2 The city actively promotes biotechnology, green energy, and fashion industries to build technological new city.

9.2.1 There are vendors of biotechnology industries up to 400 listed companies, such as Taiwan Theological Long Co., China Chemical Pharmaceutical Co., Ltd., Shengda Chemical Pharmaceutical Co., Ltd., Taiwan Salt Industrial Co., Ltd., and Nanguang Chemical Pharmaceutical Co., Ltd.

9.2.2 There are vendors of green energy industries up to 120 listed companies, such as Delta Electronics Industrial Co., Ltd. Tainan Branch, Epistar Corporation, New Century Optronics, Inc., Motech Industries Inc., and Neo Solar Power Corp.

9.2.3 There are vendors of fashion industries up to 745 listed companies, such as Tainan Spinning Co., Ltd., Tainan Enterprise Co., Ltd., Everest Textile Co., Ltd., Deli Industrial Co., Ltd., and Wankuo Co.

9.3 The city has complete solar panel industries and the sunshine conditions that are the most suitable to develop solar power.

The absolute advantageous conditions that Tainan City has to develop solar power city include: Firstly, Tainan City has naturally good sunshine conditions. The average sunshine hours in a year are up to 2,024 hours, which is not only higher than the national average, 1,601 hours, but also has the longest sunshine hours in Taiwan. Secondly, Tainan has the most complete industrial chain for green energy industries. The enterprises for green energy are up to 161 companies, among which there are 61 suppliers for solar power industries, including Motech and Neo Solar Power Corp, which are the suppliers for solar battery modules. The output values are the 7th and 8th in the world. The sum of the output values of the two factories is the largest in the world. This is one of the reasons that the southern branch of Academia Sinica is determined to be located at Tainan, including one of the three major institutes, Optoelectronic Information Institute. Thirdly, Tainan City has been approved by Executive Yuan in 2011 as the only low carbon demonstrative city in the southern Taiwan.

9.4 The city has complete LCD panel industries, leading high display quality (4K2K) low price era arriving.

Innolux, the panel manufacturer in Taiwan, reported good news in the investor conference at the end of July. LGD and Samsung, Korean manufacturers, are the top two in the world for the TV panel for long. However, this situation has been changed significantly. The market share of both TV panel in large size, 9.5 inch above, and Ultra HD in the second season in 2014 passed Samsung becoming the second in the world. However, on the other hand, the leading position of Taiwanese manufacturer in terms of 4K TV panel is turned by Korean

manufacturers in the second season this year. The competitions for 4K between Taiwan and Korea have in raging fire.

In the past, in the display panel industry, it was Korean manufacturers dominating high level market. Nevertheless, Taiwanese manufacturers were the first to launch 4K2K specifications in 2013, successfully seizing the largest panel market in the world, China. Innolux and AUO together took 76% market share of 4K2K TV panel in the last year. Korean manufacturers, who accessed the market later, can only utilize a low price strategy to promote the specifications similar to 4K2K. To compete the market in China, there was a fight of “True or False 4K” between Taiwan and Korea.

Innolux, the first company in the world to launch 4K panel, is still the panel factory that has highest shipments for 4K2K TV panel in the world. The series of 4K2K panel are sized from 40 inches to 85 inches. It is 4K2K 3D LCD 65-inch TV panel as representative. Compared to the RGBW specification launched by Korean manufacturers, the product specifications of Innolux are compliant with 4K2K high resolution specified by Europe and U.S., which is the real 4K2K. The 65-inch ultrahigh resolution 4K2K 3D LCD TV Panel launched by Innolux is awarded with Sliver Award of 22th Taiwan Excellence in 2014.

9.5 South Scientific Park – High-tech Industrial Park (optoelectronic, integrated circuit, precise machinery, biotechnology, and green energy), plus the adjacent Tree Valley Park, create the first experiences that the managements and services of industrial parks in Taiwan are provided by private enterprises. The successful mode that commits the private sectors to operate and manage resulted in the first industrial park in Taiwan that the service center established by private sector.

**CHIAYI** – AmCham Kaohsiung is pleased to offer information from Chiayi to this year’s edition of the White Paper. By doing so, we hope that a greater level of understanding, commitment and cooperation will be nurtured between Chiayi, AmCham K and the outside world. It is worth noting that for businesses in Chiayi to get the most potential benefit from this relationship, they need to be active members in the discussions and activities. Get involved!

1. What are the cities 3 major economic objectives in the next 4 years? How do they plan to implement them?

Chiayi County majors in traditional agriculture. How to assist farmers with value-added agriculture and aquaculture in order to strengthen core industries’ competitiveness, as well as increasing farmer revenue are major topics. Chiayi County is home to some of the best quality agricultural products. We shall continue promoting safe agriculture. We hope through “LOHAS Organic Farming Zones” and “Food Safety Building”, we can help promote Chiayi County’s organic

agriculture policies. This is to provide our people safe, ideal environments for growing healthy, organic foods; promoting Chiayi's organic foods as a brand.

In terms of industries, the development of Chiayi County's three major industrial parks: Dapumei Precision Machinery Park (Phase I & II), as well as Machouhou Industrial Park (Chiayi Science Park), shall generate 120 billion TWD in output, while creating employment for 35,000 people. Our residents can find work here, and don't need to find work elsewhere. In future, Dapumei shall become the County's center for technological development. It shall work with Machouhou to attract high-value industries that create minimal pollution and low impact on energy, water and other resources; also helping to create an eco-friendly industrial park. This will be our advantage over other counties and municipalities as it is something they do not have.

The National Palace Museum Southern Branch shall have its trial opening in late 2015. This is "Yun-Chia-Chia" (Yunlin County, Chiayi City, Chiayi County)'s major opportunity. The millions of tourists to the museum shall bring massive business opportunities and stimulate growth of regional economies. Chiayi County has planned a series of measures to accommodate HSR-National Palace Museum Southern Branch and surrounding areas such as: Public shuttle transportation, hostels, promoting eco-friendly environments, trip planning packages etc.

2. Please list the top 5 industry areas by tax revenue for you.

According to Chiayi County Branch of National Taxation Bureau of Southern Taiwan, Ministry of Finance, the month report for business operator revenues indicates the following five major industries:

First: Manufacturing ~ 101,076,934,881 TWD

Second: Wholesale & Retail ~ 69,722,213,356 TWD

Third: Construction ~ 17,654,195,909 TWD

Fourth: Electricity, Gas and Water ~ 12,312,007,878 TWD

Fifth: Transport and Storage ~ 4,291,483,137 TWD

3. How can Chiayi find some industries to join the Chamber?

The city government will put the recruitment sign of AmCham Kaohsiung in the commercial registration approval letter to help AmCham Kaohsiung recruit more suitable members. We can help by strengthening communication between AmCham and our industrial park service centers. This will ensure cooperation for a prosperous Southern Taiwan.

4. Is there one particular project for 2015 that you feel is the most important?

The National Palace Museum Southern Branch shall become the premiere national museum focusing on Asian art culture. It shall serve as the leader representing the cultures of Southern Taiwan and Tourism. 2015 is the year for opening preparation; thus figuring out how to manage the massive number of visitors as well the future development of the Southern Branch will be our top priority for 2015. The opening of the Southern Branch shall stimulate the growth of the golden triangle area (i.e. HSR station-National Palace Museum Southern Branch-County's special designated zone). The County Government

shall continue to invest resources for planning and development: shuttle transportation, cultural travel packages, cultural creative merchandise businesses, eco-settlements, integration of traveling information, bike rentals as well as bicycle lane networks, Asian Art Avenues etc. Chiayi County is sparing no effort to ensure a perfect opening for the National Palace Museum Southern Branch.

5. What do you see as the key area for development in your city (county)?

Attract more tourists, influence economic development and increase more job opportunities. The soon-to-be completed Southern Branch of the National Palace Museum shall become Southern Taiwan's most important cultural exhibition center. It is also the heart of Chiayi's regional development. How to utilize this advantage to build a new city center around the National Palace Museum Southern Branch, and stimulate the comprehensive development of Chiayi County's tourism sector is the most important and critical topic for us in recent years.

6. What would you like to leave as your legacy in office?

Please tell us what you will accomplish during your term.

My (Hwa-Kuan Helen Chang's) proposal of a new Chiayi County shall ensure that through glocalization, we will push for structural transformation of Chiayi County's agriculture, industries and cultural tourism; marking a new era, establishing a new paradigm for urban and rural development.

7. In terms of foreign investment, in which sector would bring the greatest benefits to your city (county)?

The city's medical resources ranked second nationwide. If we can attract more funds to build international Health Industry Research Center to provide more job opportunities of health, education and welfare, it predicted to increase 20% of turnover. Since I (Hwa-Kuan Helen Chang) took office in 2009, I have proposed a vision for a "Garden City", in which we will focus primarily on local eco-friendly agriculture, and combine it with optics, precision machinery, biotechnology and medicine, local arts & culture, eco-tourism and other low carbon industries. We will utilize the significant land resources of Chiayi County to build a convenient, sustainable and productive community. Chiayi County will be a livable city built upon these foundations (joy, arts & culture, and happiness). Our local residents shall take pride in living in Chiayi and this will help to attract more foreign businesses to flock here. I have put creating local job opportunities as the main priority. With the completion of Dapumei Precision Machinery Park (Phase I & II) and Machouhou Industrial Park, an estimated 35,000 jobs will be created, allowing our people to remain and work in Chiayi. We must also raise industry development standards. Three years ago, we've successfully invited Canon Japan, one the world's leading imaging and optics corporations, to come and establish facilities in Dapumei. This is to elevate Chiayi industries' standards to that of world standards.

8. Focus on environment technologies? How are they expected to assist in identifying, developing and maturing, transferring technologies, and commercializing ideas?

There are currently no R&D centers in here, as Chiayi County's background is primarily agriculture. According to SWOT (strength, weakness, opportunity, threats) structural analysis, environmental technology isn't our strong suit. We are currently striving to promote local environment protection projects, for example, wetlands water quality improvement.

9. What are the projects focusing on energy conservation; on adding renewable energy generation?

To make sure that we're reducing carbon footprint like everywhere else, in 2013, we combined the advantageous geographical advantage and the "Garden City" policy to achieve that. In order to promote renewable energy and increase energy diversity, we have set up a "Chiayi County public building rooftop solar PV installation lease project", ensure that public building rooftops are used efficiently. This will also help to increase revenue and create environmentally friendly communities. As of late 2014, units with a total installed capacity of 13 megawatts (MWp) were installed, and we'll continue to steadily build a low carbon, environmentally friendly solar city.

10. What successes would you most like to highlight?

Chiayi County is located in the middle of Taiwan's Chianan Plain. Terrain stretches across mountains, sea and plains. It is also situated where the Tropic of Cancer runs right through, a solid gold real estate for agriculture. Agriculture and aquaculture products are diverse and in great abundance, allowing Chiayi County to become a major agriculture county. For years, my government and I have spared no effort to promote signature agriculture. At present, the competitiveness and reputation of Chiayi County's unique agricultural products is rising steadily. To usher in a new era for our agriculture, creating value-added agriculture, food safety, and branding, Chiayi County Government is currently pushing for three major infrastructure projects, including "Food Safety Building", "LOHAS Organic Farming" as well as "Aquaculture Park". This is to ensure that Chiayi County's agriculture can transform from traditional farming to tech-based agriculture. Besides agriculture, industrial transformation is also an important topic. Chiayi County has lacked large-scale industries for a lengthy period of time. Employment is also a major problem, causing many to leave Chiayi. Through the development of aforementioned industrial parks, we can create jobs for our youth. I believe my vision for "Chiayi as Land of Opportunity, Jobs for Our Youth, Happy Families and Three Square Meals a Day" can be realized. Chiayi County must also push for industries that are "employment-centered", and care about the environment, business ethics and integrity, as well as balanced development to encourage other Chiayi residents to return. As for cultural tourism, besides supervising the progress of the National Palace Museum Southern Branch, and planning to become the hub for Southern Taiwan's cultural tourism, I believe I

have achieved results in preserving the County's cultural heritage assets, strengthening the County's smart power in cultural arts, as well as comprehensive development of tourism. Examples include: Revamp of Japanese Ryokan (Guest house) in Minxiong Township, Yuliao Historical Site, Alishan Weather Station, Puzi Rixin Hospital and other preserved historical sites and buildings. In recent years, Chiayi County has promoted scenic traveling packages and projects such as "Mingzhu Tourism Project – Zhuqi Water Park and Meishan Park", which have served as very popular tourist destinations for visitors, international and domestic alike. These have become new must-visit tourism hot spots. I hope that through these two terms, our residents will take pride in "Born in Chiayi, Live in Chiayi".

11. What do you see as being the most challenging issues that need to be addressed in the immediate future? Since I began my term as Magistrate, challenges are present every day. This is due to the fact that Chiayi County is rather poor compared to the six Special Municipalities. Many of our decisions face challenges as we do not enjoy sufficient allocated resources. We often need to seek support from the private sectors. Only by doing so can Chiayi County residents enjoy similar, if not, better treatment compared to residents from other municipalities. For example, we revamped the Chiayi County Public Library in 2014. Due to insufficient funding, we asked for support from every business, and finally we received generous support from Sinyi Realty Inc. and General Manager Lee of Le Midi Hotel Chitou.

12. What do you want the world to know about your county?

Chiayi County is home to abundant, diverse products/produces as well as unique cultural assets owing to the Tropic of Cancer. The scenic views of Mt. Alishan and its agricultural specialty products are famous here and abroad. "Alishan Forest Railway" possesses many and unique characteristics. Railway technology and cultural history has its own place. This is why I have strived to have the railway registered as a World Heritage site, making the World to notice Chiayi.

Chiayi County has comfortable climate and fertile lands, producing an abundance of quality agriculture products from rice, flowers, and fruits to Gaoshan (High Mountain) tea. The upcoming Food Safety Building shall ensure and maintain product quality, strengthening Chiayi County's reputation for delivering healthy, safe, trustworthy agricultural products to the World.

13. Please state your opinion regarding Free Economic Pilot Zone setting up in Chiayi County.

I am looking forward to a Free Economic Zone in Machouhou Industrial Park because businesses can not only enjoy reduced tariffs, but also allow diverse development of our industries.

## CONCLUSION

This sixth edition of the AmCham Kaohsiung White Paper has been expanded to include a more comprehensive snapshot of southern Taiwan, with topics specific to Kaohsiung, Tainan, Pingtung, and now Chiayi. One theme runs throughout these pages: southern Taiwan is rapidly developing into a cleaner, more eco-friendly place where new business opportunities and job creation are on equal footing-with improving the environment at the forefront of all local and central government focus. Taiwan's central government has made great efforts in providing funding for numerous development projects. With the global issues ranging from the Greek debt crisis and its effects for the EU, the volatile situation with Russia, the vile activities perpetrated by ISIS and other terrorist groups, and the ever-changing oil prices, great challenges remain for Taiwan. However, these changes also bring with them new opportunities, not only for Taiwan, but for the international community looking to Asia for growth. The strong entrepreneurial spirit and creativity of the Taiwan people maybe their greatest assets, but geopolitical and global economic changes are helping to make Taiwan a more attractive place for doing business.

While future development focusing on environmental improvement and the real world fact that industries continue to be the backbone of economic strength seem to be at odds with each other, good solutions are possible through honest and unbiased dialog and innovation. Other cities around the world have been able to find workable solutions, so why can't southern Taiwan take this challenge and turn it into a leadership role and example of Taiwan's genius?

In discussions with the various Taiwan government officials, it is quite clear that all are looking to grow foreign investment, with a distinct preference to see much of it coming from the US and Japan. In almost all the projects and plans mentioned in these pages, opportunities abound for US business involvement. Taiwan's long standing commitment towards working with the US on matters of mutually beneficial business is stronger than ever. However, southern Taiwan needs to put additional efforts into understanding what foreign investors and enterprises want in their relationships with Taiwan. One particular area of opportunity is in the potential for Taiwan companies to form new business relationships with US leisure and sport boat makers. This can be a major building block for Taiwan's boating, marina and tourism industries. Taiwan has a long history with the US and many business relationships have been established and well-maintained throughout the years. Taiwan is a vibrant democracy, operating within the rule of law, having standards and regulations that are often quite similar to those in the US. Politically, culturally, economically, geographically, strategically and logistically, Taiwan is a perfect partner with America, which does represent significant opportunities on all sides. For companies looking to Asia for the first time, for enterprises that are already in the region, or for those companies that left Taiwan for the unfulfilled promise of lower manufacturing and labor costs, Southern Taiwan is worth looking into.

Southern Taiwan offers six (6) key advantages, namely:

1. Excellent geographical position and logistics;
2. Outstanding sea and airports with a natural advantage of good year-round weather;
3. Comprehensive industry clusters;
4. Abundant manpower supply;
5. An extensive industry transportation network; and,
6. Complete provisions for foreign businessmen including excellent accommodations, restaurants, mass transit, and entertainment.