# **VLADIVOSTOK**

# "VLADIVOSTOK CITY INVESTMENT PROJECTS"

(presented in manuscript)

Vladivostok is the administrative, economic, and cultural capital of Primorsky Territory, in the Russian Far East and Russia's outpost in the Asian-Pacific Region.

The city was founded in 1861 on the Japanese Sea coast of Peter the Great Bay. Nowadays the city occupies approximately 600 square kilometers. The population is about 600,000.

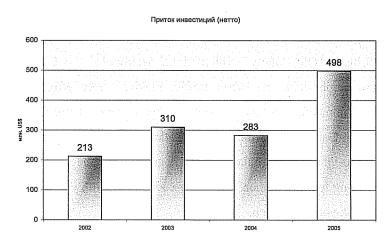
Vladivostok is a major transportation and scientific center and the Russia's largest Pacific port. Fishing and transport make up the core of the city economy. Vladivostok is the eastern terminus of the world's longest Trans-Siberian Railway and the destination of the Russia's longest domestic air route. The city's harbor comprises two ports, Vladivostok fishing port and Vladivostok commercial port.

Vladivostok is a significant scientific research and university education center in Eastern Russia. Highly-skilled professionals in various spheres are being educated in Vladivostok. Vladivostok-based researchers have accomplished a number of scientific breakthroughs that advanced the global science in such areas as marine biology, the use of taiga forest resources and the mineral resources development.

The city is home to 14 research institutes of the Russian Academy of Sciences' Far Eastern Division, 9 Universities and college-level educational institutions, a variety of theaters and museums. Vladivostok ranks third among Russian cities by the number of foreign diplomatic missions based in the city, behind only Moscow and St. Petersburg. The city is also a popular venue for various international forums, festivals and conventions. Vladivostok has all the necessary prerequisites for being a major hub connecting Europe, Russia and nations in the Asian-Pacific region. Its unique geographic location, secure bays, and year-round navigation propel Vladivostok into the position to become a center for Russia's international cooperation in the Asian-Pacific.

All these make the city business attractive for investors. Thus, for the past five years, the total volume of investments in Vladivostok economy has virtually doubled, totaling 500 million USD.

The city was a closed military base for decades, and its nascent new role as a center of communication between Russia and the Asian-Pacific region requires the adequate infrastructure to accommodate the needs of international cooperation.



Vladivostok is one of the few cities in the world where the geography hinders road transportation. The city is located on a peninsular with complex topography and monsoonal climate. As the population of the city

increases, so does the number of cars. The construction of a new city access highway and a bridge across the Golden Horn Bay are two important projects to provide solution to the city transportation problem.

The proposed highway will be an alternative to the main exit artery. Section one of the highway would be a bypass road between downtown and Vtoraya Rechka along the Amursky Bay shoreline partially placed on overpasses. Section two would be an alternative access highway from Vtoraya Rechka to Sedanka (city suburbs). In order to reduce noise and air pollution in Vladivostok's suburban resorts, the middle section of the highway will be placed on a low-lying viaduct.

The flyover bridge across the Golden Horn Bay would link two major parts of the central Vladivostok divided by the sea. Thousands of citizens have to take a multi-kilometer detour on their daily commute around the Bay, wasting a lot of time and creating traffic overload. The bridge connecting the separated city areas will promote to the intensification of the downtown business activity. Besides, the bridge is to link Vladivostok southern region with the major thoroughfares, both existing and projected ones along the Amursky Bay.

Construction of sewage treatment facilities is a vitally important issue on Vladivostok's agenda. Today the city produces about 350,000 m<sup>3</sup> of wastewaters daily, with only 10% undergoing treatment. That is why the municipal drainage is a primary polluter of the Peter the Great Bay, promoting the ecological deterioration of the coastal waters.

The proposed sewage water treatment scheme includes 4 systems: Central, South, North and East Sewerage Systems. The project envisages construction of sewage treatment facilities using advanced technologies for sewage treatment and sediment processing.

Today, the North Sewerage System construction is completed. In Southern and Central areas, all automatic flow tanks and some pumping units have been installed. Central sewage treatment facility has been completed by 25%. Vladivostok central drainage reconstruction project is being worked out. The total estimated construction cost will approximately amount to 4.2 billion rubles (156 million USD). The construction period is 2006-2010.

The Pacific Ocean washing the city of Vladivostok, boasts multiple animal and plant species, which have been studied for many years by the researchers from the Far Eastern Division of the Russian Academy of Sciences. Besides, Primorsky Territory has huge tourist potential used by only about 10%. At the same time, there are few tourist objects of international scale, thus, providing favorable conditions for the Oceanic Aquarium Complex construction. Collection of marine flora and fauna from Russian Far Eastern seas is planned to be featured in the Complex. Biological and ecological research and educational centers will be opened here. The tourists will be offered the opportunity to tour sea reserves and marine underwater plantations as well as to explore the plants of Ussury taiga. The visitors will be offered catering and accommodation services. The Oceanic Aquarium Complex is to be the only tourist attraction of this type in the Russian Far East, and one of Russia's largest tourist facilities.

The project envisages four smaller complexes: information, science and education complex *Primorsky Aquarium*, amusement park complex with Aquapark, sports and marine recreation complex and tourism service center with a hotel, restaurants and a supermarket. The Oceanic Aquarium Complex is projected to attract up to 600,000 visitors annually. The estimated cost of the project including commercial facilities equals 110 million USD.

Vladivostok is one of a handful of Russian cities to offer rare opportunities to ecological tours organizations within the city. The substantial part of the city's suburban area is covered with forest, thus, permitting to turn the suburban woods into a natural habitat for such animals as Ussury tigers, bears, deer and others. The project envisages creating of Ussuriisk Taiga Wildlife Park on a 27 hectare (67.5 acre) suburban area. This park can prove to be a major Vladivostok tourist attraction for both local and foreign visitors.

The park should serve the purpose of providing educational and recreational opportunities as well as the conservation of wildlife species, their rehabilitation and the study of wildlife biology. The core of the park's mammals should consist of large predators (Amur tigers, Amur leopards, and brown bears), medium-sized predators (wolves, lynxes) and hoofed animals (axis deer, roe deer, Siberian stags, and serows).

The exposition area will consist of four parks (Amur Tiger Park, etc.) and open-air cages for the major part of the animals. Besides, the park will have a recreational area, filming enclosure, tiger museum, exhibition hall, lecture-room and library. The greater part of the exposition will be constituted from the open-air cages along the ring road intended for walking tours and service transportation access.

This is but a brief overview of Vladivostok investment projects. We heartily encourage both Russian and foreign investors to participate in their realization.

# **BANGKOK**

"Bangkok's Promotion of Living Industry" Mr. Kriengpol Padhanarath, Director of International Affairs Division of BMA

## Introduction

Mr. Chairman, Distinguished Participants, Ladies, and Gentlemen,

It is indeed a privilege for me to have this opportunity to meet with colleagues of municipal governments at the 7<sup>th</sup> Asian-Pacific City Summit and to share with you valuable experiences in various fields. At this juncture, on behalf of the Bangkok Metropolitan Administration (hereinafter referred to as BMA), I would like to present a brief report on the new industry that we at the BMA have been trying to promote. That is the so-called "living industry". Generally speaking, we are familiar with the term "industry" meaning any grouping of businesses that have similar means and methods and usually rely on technologies to achieve a common goal of generating profits; for example, the manufacturing industry and tourism industry.

The living industry we are proposing is also based on the same concept. It refers to grouping of concerted activities to attain a common goal of generating and maximizing benefits, which are the well-being and quality of living of the people of Bangkok.

#### **Background**

Traditionally, Thailand is an agricultural nation with abundance and diversity of its natural resources including fertile lands and the ideal condition for growing crops. These factors have contributed to the country with rapidly growing economy as one of the most important food exporters in Asia as well as in the world. Because of this sturdy growth of the economy, Thailand has shifted its focus to more export oriented in the 1980s along with the promotion of "heavy industry". In short time, manufacturing has surpassed agricultural products in Thailand's GNP, while tourism has replaced agricultural products as Thailand largest source of inflow of foreign currency.

However, the rapid growth of economy has also brought many shortcomings in terms of social issues and urban problems. People in the various regions of the country abandoned their land and migrated to cities especially to Bangkok where there are supposedly plenty of jobs. Some took their families to Bangkok for not only career opportunities but also better education and convenient lifestyle. As a result, the city became more crowded and urban areas were expanded replacing agricultural land in the suburb. There were no safeguards or control over this rapid and unsystematic expansion, which created serious congestion problems. The immediate actions in dealing with these issues were to build more roads, express ways, and elevated tollways, which make Bangkok

full of construction sites. Further, more problems arose including water and air pollution, depleting natural beauty and resources, the wider gap between the rich and the poor.

Hence, Bangkok in the last decade portrayed the picture of the society with rapid but unorganized growth rising to its peak and then stumbling down which worsen many social problems requiring urgent and careful attention.

### **Promotion of Living Industry:**

In the recent years, the BMA has realized the impact of both the rapid yet unsystematic growth and economic crisis on its citizen. Therefore, it has tried to promote the new development, which stresses on the importance of balanced growth and of overall well-being of the city as well as the quality of life of the people. To do this, the Governor of Bangkok, Mr. Apirak Kosayodhin, and the BMA executives have created new visions for the city of Bangkok: sustainable city with strong communities, warm families, good governance, and participation from all social sectors.

To fulfill these visions, the following strategies are developed and BMA's working units must focus their related missions and are responsible for functioning as the operational host. The 9 strategies are:

- 1) To solve and to alleviate traffic problems by the alterative mode of transportation and intelligent traffic systems
- 2) To manage environmental and to conserve energy
- 3) To promote safety and to mitigate public disasters
- 4) To create high-quality standard of education and learning opportunities for people of all ages
- 5) To promote aggressively the quality of life including arts and the cultural awareness
- 6) To strengthen urban economy as well as to conserve art, culture and tourism
- 7) To make and to develop city planning for the purposes of the pleasant and sustainable living
- 8) To carry out urban management and administration based on good governance
- 9) To enhance the urban administrative efficiency through information technology systems

Over the last few years, Bangkok has made considerable progress in transforming the city to livable and sustainable one. This is the result of many projects and activities executed by the BMA. Based on the 9 strategies stated above, the development of policies and activities are created and divided into 3 categories: firstly, the development of urban well being and of the quality of life, secondly, the new city planning for specific development, and finally, the people-based development.

#### 1. Development of urban well-being and quality of life

The BMA is recognizing the importance of pleasant, unique, orderly downtown, of transit-oriented development, of neighborhood harmony and mixed development for traffic, environment, safety, education, economy and architecture in order to promote higher-quality life and habitat. Our various projects reflect our commitment to this kind of development that is sustainable and truly people-oriented.

# 1.1 Mass transit system and intelligent traffic development to alleviate congestion

The BMA has created a master plan to reduce traffic congestion and to facilitate people who live outside of Bangkok but must commute to the city for works and schools. The master plan includes the development of mass transit system by building small-sized mass transit and school bus networks as well as the extension of the public transport network coverage. The extensions of elevated sky trains have been under construction since November 2005. The extension will be 2.2 kilometers across Chao Phraya River to Thonburi side where the residents have long suffered from congestion. The construction will be completed around the end of the year 2006. Further extensions of the existing BTS lines in three different directions are also underway. Combined with the government's plan to extend the subway line to link the residential areas, it will greatly alleviate the traffic congestion as well as reduce the commute time. Consequently, they will enjoy more time to spend with their families and for other activities.

# 1.2 Improving urban environment to turn the city back to the state of green and pleasant place to live in

This part of the attempt deals with environmental management projects with the focus on the following spheres:

# 1) Measure on air pollution control

The BMA together with other agencies has been working on air pollution control by setting up emission inspections points in 50 districts of Bangkok and by prohibiting use of vehicles which violate the emission standard with the penalty from warning to a fine of 5,000 baht. The 17 permanent air quality-monitoring stations are also set up, along with mobile units to monitor air quality. Besides these measures, the BMA has launched a green fleet project replacing old garbage vehicles to new model using natural gas as fuel that saves the operating cost and reduces air pollution.

#### 2) Solid waste management

Yearly, solid waste has increased due to population growth, consumerism, and change of lifestyles. Presently, Bangkok produces garbage of ten thousand tons per day. In order to reduce the waste, the BMA employs measures to increase efficiency of waste management by promoting public participation to reduce, reuse, and recycle under the campaign, "Think and Save the Environment". Another measure involves the improvement of the garbage collection efficiency by exploring more efficient means and routes of collection as well as by authorizing the private collectors to transfer the wastes from the transfer stations to sanitary landfills.

### 3) Increasing green areas in Bangkok Metropolis

Bangkok has an area of approximately 1,500 square kilometers but has the green areas of only 0.83 percent of the total area or 2.24 square meters per capita. Meanwhile, City Panning Department has set up the initial target of increasing the green area to 4 square meters per capita. The current green area of Bangkok is considerably small comparing to the international standard of 10 square meters per capita as stipulated by World Health Organization (WHO). Therefore, the BMA has implemented the projects to increase the green areas by building public parks of several types: main public parks, road parks, small parks within the communities, housing complexes, government offices and rooftops. Along with the increase in green areas, there are also numerous projects launched to improve art and cultural aspects enhancing the uniqueness and beauty. Such projects include decorating various roads and intersection with flowers, improving scenery of Royal Ground or

Sanam Luang into a fresh green lawn where the people can enjoy their recreational time in the heart of the city.

4) Historical Palace and Architectural Preservation

Bangkok has served as the center of public administration, education, economy, social and culture for over 224 years. The historical heart of the city is the so-called "Rattanakosin Island". The problems of traffic congestion, high density of building, together with encroachment and unsuitable land use, lead to deterioration of the historical landmarks. Though the BMA does not have direct responsibility of preservation of historical sites, it has joined with other agencies to develop Bangkok in sustainable manner by seeking cooperation with building owners and public institutions to develop and preserve the sites and their surroundings. The BMA also issued related regulations designating areas limited to construction of certain types and height of building as well as limiting the use of buildings which are considered cultural heritage.

### 2. Bangkok's new city planning for specific development

The BMA envisions more orderly growth in the future by designating the areas for high-density development based on good existing structure such as mass transit and dividing 50 districts of Bangkok into 12 clusters with a specific plan for future land development policy in each cluster. These 12 clusters will be divided into 2 large groups: The first group is the compact city group that has potential for high-density development due to readiness of basic infrastructures. The second group is the specific areas for medium and low-density populated industrial and farming zones which are the subject for specific development according to area characteristics.

# 2.1 The compact city group inside Ratchadapisek Ring Road

This group consists of areas that have potential for high-density development due to readiness of basic infrastructures. There are 6 clusters under the group:

- 1) Old Rattanakosin conservation cluster the center of government offices, traditional businesses, and important historical sites
- 2) Central business, services, and tourism cluster the center for offices, national business operations, quality shopping centers, and hotels
- 3) New economic and service center and high-density population cluster the center for new business district and transportation center
- 4) New economic zone along the Chao Phraya River Cluster the areas absorbing the growth from the current central business district and industrial ring road
- 5) Old Thonburi conservation cluster the center for traditional lifestyle and historical tourist destinations
- 6) New economic employment and high-density population cluster- the center of transportation and government offices in the west of Bangkok, which is suitable for development of high quality residents

#### 2.2 The specific areas outside the Ratchadapisek Road

They are the areas under which the new city plan will designate these areas for medium and low-density populated industrial and farming zones. Districts under this group will also be classified into 6 clusters as

#### follows:

- 1) Northeast Bangkok transition zone the center of suburban community
- 2) Southeast Bangkok residential areas these areas are currently low-density population areas
- 3) Farm and quality residential areas these areas would be developed into a quality residential area
- 4) Suburban community center around Suvarnabhumi Airport these areas would be developed into commercial and public service areas, also the logistics center with the development of the inland container depot
- 5) Mixed farm and high-quality residential areas future development in these areas would follow the current model
- 6) Farming, industrial and agro-tourism areas- future development in these areas would follow the current model with focus on maintaining the good environment and livelihoods

### 3. People-based development

While the developmental activities for living improvement are being underway, there is also the need to work closely with people in the communities to ensure that the decisions have truly served their needs. Concurrently, it is crucial to help the people at the grass root level to fully realize the importance of self-sufficiency. Therefore, the BMA has executed campaigns for achieving self-sufficient economy. The principle has been given by His Majesty the King in order for the people to lead their lives productively and happily by refraining from extravagant lifestyles, and by having enough to subsist on and to be contented. The BMA Center for Family Saving Management has been set up and operated under the cooperation from many financial experts to guide the people who have low to middle income to enable to manage their family saving and to generate income from professional advisors. The benefit of this campaign is to achieve the self-sufficent economy among respective families which once become self-supportive, will lead to a stronger community, and ultimately, to a strong and sustainable society.

Sustaining our community also means recognizing the important role of our young people. They should be equipped with resources, knowledge, and opportunities for learning and for productively engaging in their community. There are various activities to ensure the accessibility of our youth such as BMA Learning Center for Youth and Young Children, the reinforcement project for BMA school personnel, the Bangkok Arts and Cultural Center, the organization for sports and recreation activities.

## Conclusion

The BMA is guiding Bangkok's development towards sustainable society. The various projects and activities are carried out to create an environmentally and economically healthy city by providing sustainable transportation options, better urban environment for greater health and safety physically and mentally, as well as encouraging people's participation for their own benefit. By working hard, the people of Bangkok are enjoying the good progress from the effort and contribution for sustainable living industry, and we can achieve the better life now and for many generations in the future.

# **FUKUOKA**

# "New Industry Promotion by Fukuoka" Mr. Hiroshi Yamano, Deputy Mayor of Fukuoka City

Fukuoka City is located in the north of "Kyushu", the westernmost region of Japan. Surrounded by many East Asian cities at an almost equal distance from other Japanese cities, Fukuoka is one of the region's central hubs.

Due in part to this geographical proximity to Asia, Fukuoka has developed as a gateway to Asia and a commercial capital through its exchange and trade with the continent since ancient times.

The city's area of 340 km² is inhabited by 1.4 million people. It boasts of its superb transport infrastructure. Its seaport known as the Port of Hakata annually handles 670,000 TEUs of international containers while the 680,000 passengers traveling to and from the Port of Hakata on international passenger liners, makes it Japan's largest port.

Fukuoka Airport is used by 18 million passengers a year, and its cargo including mail amounts to 290,000 tons. In addition, its train systems and urban expressway system directly linked to the Kyushu Highway also contribute to the city's excellence in accessibility.

Against such historical and geographical backdrop, the tertiary industry prevails in Fukuoka City. It accounts for about 90% of the GMP of the city.

A large number of universities attract many students and produce and bring excellent human resources into society. The number of students per capita of Fukuoka City is the 2<sup>nd</sup> most among all major domestic cities, while that of foreign students is the 4<sup>th</sup> most among government-ordinance designated cities in Japan. Kyusyu University, one of the leading universities in Japan has just formed its new integrated campus, "Kyusyu University Ito New Campus".

Furthermore, the city is the home to numerous research institutes such as "Kyushu Institute of Information System and Technology", affiliated organization of the city, and "Innovation Plaza Fukuoka", a national agency to promote the use of research outcome. There are also numerous educational institutes in the city including "Academy for Advanced Information Technology Professionals."

Fukuoka is literally an international city where many people from Asia, USA, and Europe reside.

In addition, Kyushu, which all of the Japanese participating cities of this Summit belong to, manufactures 30% of ICs produced in Japan, while its output in automobiles stands at 1 million a year. Having these two important sectors in its vicinity, Fukuoka City hopes to bring out synergy through technological partnership and integration. To this end, the city looks forward to building a capacity for research and development as well as human resource development.

There are 7 major areas within the city that we believe make the most of its strength and characteristics and will prosper in the future. Fukuoka is rich in intellectual resources for "Information", "Automobile", "Nanotechnology and Biotechnology", "Hydrogen." Its free and lively culture fits in the creation of "Digital Contents" and "Music." The last area is a very promising sector, "Robotics."

#### 1. Information Sector

Fukuoka City's efforts to promote information industry started in 1985 including the development of the Fukuoka Soft Research Park, as a focal point of the reclaimed Seaside Momochi area. The fruit of this project includes 130 companies located in the area which employ 6,500 people. The Park is indeed a hub for Japan's information technology sector, accounting for 1% of the city's GDP with the annual output of ¥59.3 billion. The city has been greatly successful in the promotion of IT businesses with its rapid growth of employers and employees numbers being 7 times faster than the national average over the years since 1985.

"Kyushu Institute of Information System and Technology" was established as a hub of research activities in the Software Research Park. An innovation in the field of System LSI delivered by this institute has paved the way for the establishment of "Fukuoka System LSI Comprehensive Development Center", which provides support for activities ranging from education and training, research and development, to application development. Today, in this center, approximately 50 companies including venture businesses, design System LSI or undertake other businesses.

#### 2. Automobile Sector

In Northern Kyushu, numerous automobile-related industries have been established and automobile electronics is rapidly growing. Fukuoka City's strategy in the automobile sector is to create excellence in research and development as well as human resource development by making the most of IT and IC companies as well as the Science and Engineering faculties of universities located in the city.

Fukuoka City is already the home to the related companies, such as the Morio Press Engineering from Fukuoka and Shaeffler Japan from Germany.

- · BPA: Digital Engineering for Car Production Technology
- EDAGJAPAN: Engineering & Design for Cars and Car Parts
- · Schaeffler Japan: Manufacturer and Supplier of Bearings
- Panasonic Automotive System : Development of In-Car Multimedia Equipment & Systems
- Mitsubishi Electric : Development & Manufacture of Inverter Control IC Modules for Hybrid Cars
- Denso Techno: Design & Development of Control Software, Circuits, Equipment
- Morio Press Engineering: Design & Manufacture of Press Mold, Processing and Assembling of Metal Press

# 3. Nanotechnology and Biotechnology Sector

The Government of Japan has put major emphasis on the nanotechnology and biotechnology sector for its strong business potential. Nationwide investment into research and development efforts gets underway in this sector. In Fukuoka, Kyushu University is leading academic research on nanotechnology and biotechnology. In addition, its Center for Future Chemistry is working on industrialization projects.

Against this backdrop, Fukuoka City has established the "Study Group for the Promotion of BT, NT, IT Sectors" as a facilitator for information exchange and interaction between local companies and research institutes related to these 3 sectors.

"Nano Fukuoka 21 Project" is a joint effort between Fukuoka City and Fukuoka Prefecture. This project aims to develop new nanotechnology and create the nano-industry which is originated in Fukuoka.

Furthermore, aiming at creating new industries and new businesses focused on nanotechnology, Fukuoka City plans to open the "Industry, Academia Partnership Center" in the vicinity of Kyushu University's Ito Campus by the year 2008.

## 4. Hydrogen Energy

Fukuoka Hydrogen Energy Strategy Council promotes close cooperation among industries, universities, and governmental bodies in order to facilitate research, development, and verification concerning hydrogen energy, and to attract firms in the hydrogen energy sector, thereby creating a society which is based on safe and eco-friendly hydrogen energy.

Kyushu University's new campus functions as a mini-model of a society which is equipped with hydrogen infrastructure. Hydrogen energy generated at the campus circulates. Bus operation powered by fuel cell is considered as one possible outlet of circulating hydrogen.

There are 3 different research themes pursued through verification and for further verification in order to develop the social application of hydrogen:

- ① New energies such as photovoltaic and wind power generation for power supply
- ② Hydrogen stations for production, compression, storage, and supply
- 3 Operation of fuel cell shuttle buses

#### 5. Digital Content Sector

Several nationally renowned video game production companies are located in Fukuoka City with a workforce of approximately 400 people. Thus Fukuoka's digital contents sector features ongoing animated efforts to draw game companies into Fukuoka.

In cooperation with Kyushu University, Fukuoka City provides support in the government-industry-academia collaboration regarding human resource development and recruitment, in the promotion of Fukuoka as a major game producer, and in the market development, thereby creating a strategic base for the digital content sector centering on the video game industry.

- \*"GEF" refers to an industrial organization established by local game production companies aiming at attracting game companies to Fukuoka City. (The current number of members is 9.)
- \*"Contents" refers to what is created by humans for education or entertainment including movies, music, the theater, literature, photography, animation, PC games, etc.
- \*"Digital Contents" refers to digitalized contents, including DVD, CD, game software, online music distribution, online ringing melodies, online ringing songs, games for cellular phones, digital broadcasting, etc.

#### 6. Music Sector

## ① Strategic Event:

In 2002, and in collaboration with the music industry, governmental bodies, and universities, Fukuoka City started an urban music event known as "Music City Tenjin." The number of spectators increased three fold compared to 2002 to that of 86,000.

- ② Information Transmission: The city operates "Fukuoka Music Portal Site."
- ③ Performing Opportunities: Support for Street Performance
- ④ Enabling Environment for Music Production and Distribution: The Music Industry Promotion Fund was set up.
  - \*"Indies" mostly refers to independent record labels which have small capital. They are not members of the Japan Record Label Association. The Indies market comprises of consumers who buy music works produced by the Indies.

#### 7. Robotics Sector

The strong potential exists in the robotics sector. Furthermore, the next generation of robots such as nursing robots will help improve our citizens' quality of life.

By making the most of Japan's deregulation programs, Fukuoka City has tested robots on public roads for the first time in Japan to collect data and information for further development of robot application. The city also created "Robosquare" as a base for research and information dissemination concerning robotics. Fukuoka City hopes to develop a community where people and robots meet by conducting activities with Robosquare as a key facility and by utilizing knowledge gained from its testing experience.

Together with Fukuoka Prefecture and Kitakyushu City, Fukuoka City provides support for research and development toward the practical use of the next generation of robots. The city also makes efforts to nurture the dreams of citizens and deepen their understanding about science by organizing science classes for elementary and junior high school students in Robosquare which is visited by more than 160,000 people per year.

In closing, I sincerely hope that we will continue and facilitate further mutual interchanges among participating cities of the Summit, such as exchanges of information and development cooperation not only in the tourism sector but also in the numerous sectors mentioned at this Summit. Thank you very much.

# **KAGOSHIMA**

# "Developing New Industries" Mr. Hiroyuki Mori, Mayor of Kagoshima city

# Theme: Developing New Industries

With the fast-growing progress of global economic unification, competition between business organizations is growing more intense from day to day. Through learning from each other and understanding how all summit member cities are promoting new industries, I believe each of us can play a more active role in the continuing development of our cities.

I would like to speak to you today about Kagoshima's current initiatives to promote industry, as well as our aims for developing new industries in the future.

I would like to give you some background information about Kagoshima. Our city is situated at the center of Kagoshima Prefecture, which lies at the southern tip of Kyushu. Throughout its history, Kagoshima has continued to make the most of its special geographical location as a gateway to Asia, for example by enjoying an active exchange with countries overseas. Kagoshima is also the birthplace of the Meiji Restoration of 1867, the event that led to the modernization of Japan. Through the Meiji Restoration, one provincial city succeeded in changing the whole country, a rare feat in the history of the world.

Since merging with five neighboring towns in November 2004, the Kagoshima city area has doubled, and currently extends to 547 km². In addition to higher-order urban functions, we have gained a rich natural environment, and the population has reached 600,000.

Our city is very proud of our active volcano Sakurajima, one of the most prominent in the world. Lying just 4 km across the bay from the downtown area, Sakurajima's location right next to a city of 600,000 people is one that I believe exists nowhere else in the world. Kinko Bay, the bay that surrounds Sakurajima, is a treasure trove of fish. It is also home to a large number of dolphins, which can frequently be seen jumping out of the water. In addition, Kagoshima is the perfect place for rest and relaxation, thanks to its warm southern Kyushu climate, and its rich hot springs.

Since my appointment as Mayor of Kagoshima, I have added new initiatives in order to make the most of these local resources. In particular, I have consistently put my strength into developing our tourism industry.

In December last year, we formulated the *Kagoshima Future Tourism Strategy*. The basic concept of this strategy is to focus on Kagoshima's unique features, and create an international tourism city with a multitude of attractions. This fiscal year, we have started putting into practice initiatives based on the strategy. The 15 key points of the strategy are based on four basic guidelines, including our aim to create a city with plentiful attractions.

One of the greatest fireworks display in Japan," Kagoshima Kinko Bay Summer Night Fireworks Exhibition" is held in summer. There are many wonderful golf courses where we can play golf watching Mt. Sakurajima.

We like to think of our city as a theme park, with a multitude of attractions that give Kagoshima its special difference. I would like to extend an invitation to everyone in Japan and across the world to visit Kagoshima, where I am certain you will have very enjoyable time. The 600,000 citizens of Kagoshima look forward to welcoming you.

#### 1. Introduction

To begin with, I would like to talk about the industry promotion initiatives that Kagoshima has been carrying out. Kagoshima's industry structure is concentrated on tertiary industries such as the service industry, wholesale and retail business. Over 80% of our city's offices and employees are employed in tertiary industries, whose gross production accounts for around 90% of the total industry gross. Given this situation, we are putting efforts into developing the tourism industry, which will have a high economic ripple effect towards all areas of industry. We are also creating policies focused on revitalizing our urban centre, and promoting traditional local industry.

## 2. Developing New Industries

The theme of this sub-session is "Promotion of New Industries". I believe the role that we should play as local government is to develop infrastructures and suitable environment, and to build schemes for the creation of new industries. In Kagoshima, we have been working closely with private companies and organizations in order to advance our urban infrastructure. Our city now has a unified infrastructure, making it the main transport hub of the south.

Up until now, Kagoshima has focused on the promotion and development of existing industries. However, in order to plan the creation of new industries into the future, it will now be essential for local government and the private sector to work together as one body.

## 3. Economic Promotion Policies in Kagoshima

Regarding our policies of producing new strength to revitalize our economy, in April 2001 we opened the *Soft Plaza Kagoshima*, the key promotion and support centre for information-related industry. We have been working hard to support fledgling industries in Kagoshima City and attract companies from outside Kagoshima Prefecture.

Additionally, in December 2004 we opened the *SOHO Kagoshima*, the citizens' development and support base center aimed at SOHO (Small Office Home Office) business people, and citizens who are looking to start their own SOHO business. In this way, we have been promoting the establishment and development of new and original business ventures.

These initiatives have led to an increasing number of business entrepreneurs, the establishment of business cooperatives, and the advancement of small business into stock companies.

In addition to these initiatives, we have been openly gathering original ideas in-the-making from business people, regarding potential growth of industries. Those whose ideas are selected receive subsidies and other support from Kagoshima City, in order to successfully realize their ideas. This initiative, *the Kagoshima Business Frontier Idea-Gathering Programme*, started in 2003 and aims to encourage the birth of new business projects

and give a boost to Kagoshima's economy.

Kagoshima has already given awards to and supported several such ideas through this scheme. One example is the development of a product made using waste plastic and *shirasu*, Kagoshima's distinctive soil made up of deposits or volcanic ash and sand. Another product that was developed was equipment used for manufacturing of secondary concrete products. We have even seen those that will help prevent deforestation, with the development of a product made using bamboo charcoal, manufactured with the bamboo that is yielded in great quantities in Kagoshima Prefecture.

This initiative is still in place this year, and we expect to have the result of this year's selection soon. We are very much looking forward to seeing the new ideas of applicants who have had past success, and to ideas from first-time applicants too.

In this way, Kagoshima is proud to be actively supporting original business people who create this driving force behind our new industries. We are already seeing the steady results of this program.

### 4. Looking towards the Creation of Kagoshima's Future Industries

As I have explained, Kagoshima has been carrying out initiatives to gain new strength, for example by developing and supporting information-related industries and original business founders.

As for our future industry policies, while increasing the best features of our city, I believe we must consider actively supporting and creating schemes in fields that we have not yet tackled.

When one thinks of new industries, one often imagines robotics industries and bio-industry. However, I believe that for Kagoshima, our future connections to the creation of new industries may lie not with these hi-tech industries, but rather with low-tech industries.

As I mentioned earlier, Kagoshima is situated at the southern tip of Kyushu and is the ideal environment for mental and physical rest and relaxation, thanks to its warm climate, an abundance of ocean life, rich hot springs, and many other attractions. I believe that by making the most of these features, we have the chance to develop health care related industries that are able to face the unavoidable issue of a super-aging society. I believe that Kagoshima is a paradise where all kinds of people can find relaxation.

Kagoshima Prefecture has the highest production of beef and pork in Japan, and is the third highest producer of chicken. Starting with *kurobuta* black pork, the quality of our food production is highly valued throughout Japan. Our local drink, a distilled potato liquor known as *shochu*, has surpassed its boom across Japan, and is fast becoming established as our country's best loved alcoholic drink. I believe we may find new strength by casting a spotlight on this rich food culture and creating restaurant complexes, as well as venues that incorporate food production, preparation and even a dining area.

We aim to tell the world about Kagoshima through our food, and we hope that future generations will say, "If you want good food, go to Kagoshima".

#### 5. Conclusion

What is important in promoting future industries is to maintain urban development, and to strive towards the implementation based on recycling and symbiosis with nature.

Based on this argument, it is essential that we lay down a solid groundwork by thoroughly researching the special features of the local area, before ascertaining the industries that have the chance to thrive and that the local area can support, and finally putting our strategic efforts into these industries. We must also think more broadly about areas that lack sufficient management resources and the possibility of moving establishments in from other areas.

In Kagoshima we will put our efforts into three areas: the development of existing industry, such as IT industry, the addition of a new perspective towards the development of the tourism industry, and areas in which we have not yet focused on, for example, the promotion of food or healing-centered industry.

Competitions between regions have been growing stronger. However, I believe that the competition in our society does not mean that only one specific area will win out. Rather, through competitions, we can strengthen each other, and construct a society where people in every area can have peace of mind and live in safety.

# **KITAKYUSYU**

# "Urban Strategies of Kitakyushu City, for the Creation and Cultivation of New Industries" Mr. Shigeru Suzuki, Deputy Mayor of Kitakyusyu City

I would like to thank all persons concerned for the 7<sup>th</sup> Asian-Pacific City Summit, and for an opportunity to give you a presentation.

Kitakyushu City is one of 15 major cities in Japan, and was given birth in 1963 following the merger of five cities.

Its area is 485 km², population is approximately 1 million, and GDP is 3.4 trillion yen.

As can be seen on the map, the City is located roughly halfway between Tokyo and Shanghai, both being within 1,000 km. Within the 500 km zone are Osaka, Seoul and Inchon. Located in the western part of Japan, it is close to the East Asian countries showing remarkable growth.

Owing to this geographical advantage of being located closer to various East Asian cities than other Japanese cities, Kitakyushu City has since the beginning of the 20<sup>th</sup> century developed into one of Japan's representative industrial and harbor cities.

It can be said that the Kitakyushu City's beginning as an industrial city was marked by the start of operations of the government-owned Yawata Ironworks (currently the Nippon Steel Corporation Yawata Works) in 1901 (year 34 of the Meiji Era).

It was equipped with Japan's first modern blast furnace, and from this point on, this region known then as the "iron town" supported the modernization of Japan.

The establishment of Yawata Ironworks triggered the births of core industries such as materials and industrial machinery that shaped the industrial framework of Kitakyushu City. Please note that during this time, Japan's leading corporations such as TOTO and Yasukawa Electric were established.

The City's high manufacturing ability continues to be applied in various industries.

Through the process of overcoming pollution, there now are many corporations with practical accomplishments in environmental conservation skills including those of countermeasures against air and water pollution. Besides, many more are making forays into new areas of environmental/recycling industries.

Owing to reasons including the energy revolution, which made the switch from coal to oil and the moving of domestic industrial locations to the Pacific belt zone, the economy of Kitakyushu sank steadily.

In addition, the transformation of industrial composition was delayed amidst the high-yen recession after the Plaza Accord in 1985, and this greatly weakened the City's international competitiveness.

In 1987, with the assumption into office of Mayor Sueyoshi who remains in the same position today, a long-term vision the "Kitakyushu Renaissance" was established to reform Kitakyushu City, with reference to the reformation example of Pittsburgh in the US which was also an iron city. It was decided to promote urban development by highlighting the individuality of the region.

# 1. Based on the vision of the "Kitakyushu Renaissance," the City has undertaken various major projects

- In order to recover its function as a transportation hub, the City began providing services in the HIBIKI Container Terminal, the only deep-water port in Japan facing the Sea of Japan, in April 2005. Also, a full-scale offshore airport commenced operation in March 2006.
- Besides, in order to enhance the superiority of being a manufacturing region and to promote the sophistication of industries as well as to create new industries, the Kitakyushu Science and Research Park was opened in April 2001, with the aim of becoming a core academic research hub of Asia.
- Further, the Eco-Town project, the leading town of Japan's environmental industry, is currently underway; aggregation of environmental industries incorporating cutting-edge technologies and systems is advancing, and the brand of "environmental capital" is beginning to take root.

In recent years, many most-advanced automobile plants in the country began operations in the northern Kyushu region, including the Nissan Motor Co., Ltd. Kyushu Plant, Toyota Motor Kyushu, Inc., Daihatsu Motor Kyushu Co., Ltd. and Mazda Motor Corp. Hofu Plant. They have been increasing their production, and the automobile production capacity of northern Kyushu is expected to exceed 1.5 million.

In addition, the only engine plant of Toyota besides the one in Nagoya, their headquarters, was newly established in 2006 in Kanda-cho, a neighboring town of Kitakyushu City.

This is why Kyushu is called "Car Island."

With the advancement of such automobile manufacturers as well as increase in production, aggregation of auto-parts manufacturing plants is also being promoted. Besides Denso and Toyoda Gosei, 31 primary auto-parts manufacturers have come to Kyushu, and together with secondary and tertiary auto-parts manufacturers, the number is quite impressive.

Investment from overseas is also becoming active.

Kyushu also has another name, "Silicone Island."

The volume of semiconductor production in Kyushu accounts for 25% of Japan's total, and major semiconductor producers are located in Kyushu, including Toshiba Semiconductor, Mitsui High-Tec, Rohm Fukuoka and Panasonic Factory Solutions.

Besides, in regard to Kitakyushu City only, it is here that the semiconductor design and development hub is concentrated, accounting for approx. 35% of the entire Kyushu region.

Further, Kitakyushu City is home to Yasukawa Electric who provides industrial robots to factories worldwide, and Tmsuk who develops various robots including security patrol robots and rescue robots with sophisticated technology and innovative ideas.

These two companies presented their products in Expo 2005 held last year in Aichi Prefecture.

In 2003, the Robot Industry Promotion Council was established with members from corporations, universities, research facilities and administrative bodies, centered on the three governments of Fukuoka Prefecture, Kitakyushu City, and Fukuoka City. This council has conducted various activities in order to create new robotics industries.

And, Kitakyushu City established the Kitakyushu Robot Forum participated in by robot-related corporations,

universities and research facilities within the City in March this year.

We intend to use this Forum as an opportunity to begin promotion of the robot industry under industry-academia-government collaboration.

The Kitakyushu Science and Research Park opened in 2001. Here, mainly from the perspective of industrial development, industrial areas where growth can be expected in the future are selected in order to fortify academic research functions to support such growth.

The current main themes are "information" and "environment," and we are concerting our efforts into the sophistication of existing industries and creation of new industries.

\*Development area: approx. 335 hectares (planned population: 4,100 households/12,000 persons)

\*Number of students: 2,153 Of these, 362 are foreign students

Breakdown of major countries of nationality

China: 297 (composition ratio: 82%)

South Korea: 27

Taiwan: 16

National, public and private universities as well as public and private research organizations facilities related to science and engineering are aggregated within the same campus located within the Science and Research Park. We aim to realize the sophistication of the entire Park by encouraging several universities and research organizations to have contact, cooperate and compete with each other on a daily basis.

The Kitakyushu Foundation for the Advancement of Industry Science and Technology (FAIS) was established as the pipeline between universities etc. and corporations in the Kitakyushu region so as to promote business-academia collaborative projects.

FAIS will support the sophistication of existing technologies and creation and cultivation of new industries, and aim to develop local industries and create venture businesses.

# 2. Organization and functions of FAIS

- Campus Management Center
  - \* Management of joint-use facilities, promotion of collaboration and communication among universities, management of the Foundation
- SoC Design Center
  - \* To promote business-academia collaboration in order to create an LSI design hub
  - \* Human resource development, cultivation of venture businesses
- Human Techno-cluster Promotion Center
  - \* Project promoted with the adoption by the "Intellectual Cluster Formation Project" of the Ministry of Education, Culture, Sports, Science and Technology
- Collaboration Center (houses corporations, research organizations, universities, etc.)
  - \* Coordination of business-academia collaboration, consultations regarding technology etc., financing of

R&D

Support Center for Small and Medium-Sized Corporations

\* Financing of and general support towards R&D by local small and medium-sized corporations, management

of Kitakyushu Intellectual Property Center, management of Kitakyushu Telework Center

There are 4 facilities: the Collaboration center which is a facility promoting business-academia collaborative

R&D of IT and semiconductors, Collaboration Center Building 2 (Semiconductor Center) where trial models of

semiconductors can be made, Collaboration Center Building 3 (IT Advancement Center) which fosters

semiconductor designers and digital image processing engineers as well as other specialists, and

Commercialization Promotion Center which consists of labs that support R&D and small offices that provide

headquarters' for start-up businesses.

In 2004, the Park was designated as the district to conduct the Intellectual Cluster Formation Project, established

by the Ministry of Education, Culture, Sports, Science and Technology to create a "Japanese version Silicone

Valley." Research funding of 500 million yen per year is provided for the duration of 5 years, totaling 2.5

billion yen. The Kitakyushu project aims to conduct technology development that is environmentally friendly

based on its system LSI technology and micro/nano technology, and also to introduce new industries to the City

through business-academia collaboration.

So far, the results of business-academia collaboration have been 120 patent applications, 5 commercialized

merchandise and 9 venture businesses originating from universities; our efforts are just now beginning to bear

fruit.

3. Business-academia collaboration fair

The Business-academia collaboration fair is held every year to dispatch and disseminate information regarding

the research seeds of local universities (research organizations), corporations, etc., as well as the trends of

advanced science and technology, and to provide a meeting opportunity between industries and universities.

The aims are sophistication of local industries and creation of new industries.

2001: 3,800 participants

2002: 4,000 participants

2003: 5,300 participants

2004: 6,500 participants

2005: 7,100 participants

4. Business-academia interaction salon (Hibiki no salon)

In order to create a mechanism where various business-academia collaborative activities are generated, the

Business-academia interaction salon has been held since May 2002 to provide opportunities for people from

academic, business and governmental circles to conduct open discussions on selected technology themes.

Held the total of 44 times since 2002, and the total number of participants to date is 4,200.

Regarding the future development of the Kitakyushu Science and Research Park, we first of all feel that

**-** 66 **-**

aggregation of universities and research organizations is insufficient at this point. We need to concentrate more intellectual powers in one place.

We also feel that the strengthening, expanding and fusing of research fields related to cutting-edge science and technology is essential. We will need to enhance and strengthen our hitherto prioritized technology area of environment and information, and at the same time, we need to promote the development and application of bio and nanotechnology, the two technology areas that are currently attracting much attention.

In the future, Kitakyushu City intends to develop these technological developments into "environmental-conscious advanced manufacturing" and "daily-living-related advanced manufacturing."

Just as the symbol of development of our city in the 20<sup>th</sup> century was a blast furnace, we trust that our Kitakyushu Science and Research Park will be the source of development of our City in the 21<sup>st</sup> century as a "furnace of intellect," giving birth to new industries and outstanding human resources, one after another.

Thus, Kitakyushu City encourages business-academia collaboration, and creates and promotes new industries through various efforts and innovative ideas.

Thank you very much for your attention.

# **SAGA**

# "Promotion of New Industries" Mr. Toshiyuki Hideshima, Mayor of Saga City

## 1. Introduction of Saga City

# (1) Consolidation (Expansion)

On October 1 of last year, Saga merged with 3 surrounding towns and 1 village to create a newly expanded city with an area of 355 square kilometers and a population of 203,000 citizens.

# (2) A Wealth of Natural Beauty (Mountains→Plains→Sea→Seaweed)

Blessed with rich culture and impressive history, the expanded Saga City also has an abundance of natural beauty that encompasses the mountains, plains and sea.

The natural wonders of this region have captivated movie directors and authors alike and include some nearly 2000 year old hot springs that offer visitors a dose of tranquility, healing and revitalization.

Saga's plains are not just famous for the delicious rice they produce. After the vast fields are harvested, they become a landing site for hot air balloonists all over the world during the Saga International Balloon Fiesta, held every autumn.

The streets of the city are also filled with symbols of Saga's rich cultural history and traditions. In particular, Saga is famous throughout Japan for the 400-plus statues of Ebisu, the God of Wealth and Commerce that adorn our street corners. Thanks to the blessings of this Deity of Good Fortune, Saga is known for producing frequent winners in the national lottery.

## (3) "Nori"

The Ariake Sea, with a 6-meter difference between high and low tide, boasts some of the best tasting and highest quality "Nori (dried seaweed)" in the country. One type of nori is made from the rare "Hizen Asakusa" plant. It takes years of careful cultivation to produce Hizen Asakusa Nori, each sheet of which has a value of over \(\frac{1}{2}\)100 and is sold in Tokyo department stores for as much as \(\frac{1}{2}\)500 per a sheet.

Since the creation of even a single sheet of Hizen Asakusa Nori is such a laborious process, Hizen Asakusa Nori makes up a mere 0.02% of total nori production in Saga. This delicacy is even known as "the phantom nori" since so few people have the opportunity to try it. However, those of you here today have received a sample of this rare treat. Please enjoy!

## 2. Saga University

The city of Saga also puts every effort into nurturing innovative business and technology opportunities.

Saga University has state of the art research facilities that support cutting-edge research on clean energy solutions and substance analysis.

Firstly, the Institute of Ocean Energy strives to combat the impending energy crisis by looking at the ocean as the world's greatest potential energy source.

In particular, the Institute is beginning experimentation with Ocean Thermal Energy Conversion, a process that uses the temperature difference between surface level water and deep-sea water to convert marine thermal energy into electric power.

In addition, there is the Synchrotron Light Research Center.

Synchrotron light is produced in an electron accelerator. Electrons are accelerated to almost the velocity of light and the direction of the electrons is altered by a powerful electromagnet, emitting synchrotron light. Synchrotron light is 10,000 times brighter than conventional light and is powerfully released in nanoseconds. Therefore it can provide insight into phenomenon that change rapidly with time as well as help shorten analysis times.

Saga University's research facility is even looking beyond just Saga prefecture, to support the research of organizations and enterprises in Kyushu as well as overseas.

#### 3. Business Incubator

To encourage industrial and commercial development, the city established a "business incubator" designed to support individuals and companies that seek to develop new technologies and business systems. The incubator was created in 2002 and is located on the 5<sup>th</sup> floor of the centrally located I-Square building.

The incubator has supported many business ventures and helped realize various new technologies such as a widely used medical technology called ASP technology and new systems for use in crime prevention.

Today I will introduce two successful companies that got their start in this creative environment.

#### (1) JIMCO

The first company is JIMCO. With only 15 staff members, this company is a powerhouse in the field of technological development. It holds many highly coveted software patents including that of a new technology which combines television imaging and Character Data to create a "Digital Signage System".

The Development Department of this company that moved into the Incubator in 2002 developed an innovative electronic filing system to cope with the changing demands of a new generation. The completed software is being marketed under the name "Intellectual Property Warehouse".

Recently, in the field of public administration as well as private enterprise, there is an increasing emphasis on proper management of information as well as a pressing need for fast access to that information.

The "Intellectual Property Warehouse" system innovated by JIMCO is Linux based; therefore wherever you are in the world, as long as you have Internet access, you can easily access your desired information.

In addition, the so-called data "warehouse" is decentralized, meaning the data stock is divided between two locations within Saga, a prefecture with a low incidence of natural disaster in Japan. This kind of measure not only increases the overall quality of the system, but also adds to the system's security and reliability.

Valued for these very qualities of dependability and safety, the system has been used from the outset by world renowned companies involved in fields such as animation and ship building that create products for the global economy. Currently, the system is not only being adopted within Japan by general contractors, financial institutions, hospitals and municipal governments; it now has the potential to expand to the overseas market.

### (2) M-TEC

The next company I'd like to introduce is M-TEC JAPAN.

M-TEC JAPAN is a medical equipment manufacturer that took up residence in the business incubator and became incorporated in the same year of 2002.

The company president previously worked in development for a major medical supplies manufacturer, and now is developing a variety of medical equipment for use in endoscopic surgery.

Endoscopic surgery is increasingly being adopted in a variety of medical fields. It is a highly effective procedure that minimizes the mental and physical effects of surgery on a patient and also speeds up recovery time.

The main products engineered by M-TEC are devices known as retractors and ligatures.

A ligature is used to tightly tie off something like a duct or blood vessel to prevent bleeding after surgery. It is a critical step in any kind of surgery and one that, if performed improperly, can result in hemorrhaging or other dangers to the patient.

The ligature that M-TEC developed has earned an excellent reputation among the physicians who use it because of its high success rate and ease of use.

The retractor is an instrument used to temporarily shift the position of internal organs that are not directly involved in the surgery, thereby widening the surgeon's field of view during an operation. M-Tec's retractor is more compact than other company's models, so insertion of the device causes less discomfort for the patient. Also, it has higher operability and functionality, and as a result is being introduced in more and more hospitals.

For medical instruments used in life-saving procedures, safety is of the utmost importance. Rather than approaching things from a classical "big business" economic bottom line perspective, M-TEC designs products with the patient in mind. As a result, their products have great appeal for practicing doctors in real-life medical situations.

Although it is a small company, the impact of M-Tec's world leading products is large.

#### 4. Conclusion

Saga city may have only 200,000 people, but we respect our past by preserving our cultural heritage and secure our future by promoting economic growth and nurturing talented people. In this way we are working to build a richly successful and highly livable city.