(6) Sub session 3

Miyazaki

E-Governance-IT Information Technology and City Government

[Outline of Miyazaki City]

I would like to begin with a short profile of Miyazaki City. Miyazaki City is located on the south-west of Kyushu Island. It is a beautiful place with warm winds, and it is steeped in ancient history, myths and legends.

The population of Miyazaki is over 307,000 people, and it is developing as the capital city of Miyazaki Prefecture. Miyazaki City aims to be recognised throughout Kyushu as a city with advanced health welfare, volunteering, IT education, and environmental initiatives. We have made steady progress towards our goals and aim to live up to our catchphrase: "Lively Sunshine City, Miyazaki".

During the 2000 Kyushu Okinawa Summit, the Foreign Ministers' Meeting was held in Miyazaki. Also Miyazaki City was the campground for the 2002 Swedish and German Football Team Training Camps. Blessed with warm weather and beautiful natural surrounds, Miyazaki has become a world class tourist resort city.

[The Advancement of Computerization and Information Technology in Miyazaki]

I will now discuss computerization and information technology in Miyazaki City. We are currently working to develop telecommunications and information systems in our area as rapidly as possible. We have two main goals. First, for citizens to use advanced telecommunications, and second, to meet the standards set by the national government for Japan to become a world leading nation in information technology by 2005.

[Cable Television and Sunshine Community System]

In 1996, the Miyazaki Cable Television Corporation (Miyazaki CTC) was established by a local private enterprise with the Prefectural and government financial backing. The access to television channels in Miyazaki is now similar to the more populated areas of Japan.

These days Miyazaki CTC offers not just television programming but it has also expanded its services to include internet provider operations. It has become a key institution in promoting computerization in Miyazaki City.

The company's high speed light cable provides the infrastructure for Miyazaki's information system. It is called the "Sunshine Community System", and it provides useful information to citizens. You can access government, sports, library and other information on these computers. The Kiosk terminals have proved extremely popular.

Major projects in progress include:

1. Informatization of Public Administration

-Electronic distribution system in the metropolitan area to create an e-Government has been established

-G4C Project, providing civil services via the internet, will begin to operate in October this year

-By integrating City, Gu (Ward), and Gun (County) administrative information systems, civil documents are issued via the automated system

-Telephone-via-internet system connecting civil service customer and the civil servant in-charge is currently in operation

-Electronic document management system to allow joint access to all administrative data has been established

2. Informatization of the Industries

-Centum City Development Project, which aims to create a future-oriented, multi-functional city, now supported by the national government's plans to develop high technology multimedia complex

-Construction of technopark to focus on the promotion of harbor logistics, automobile, and software industries

-Transformation of all industrial complexes into 'digital industrial complexes'

-Construction of IT Venture Center, which even accommodates Japanese enterprises

-Informatization of shoes industry, one of Busan's key industries

3. Informatization of Urban Infrastructure & Construction of Information Infrastructure

-Construction of UIS (Urban Information System), incorporating information on roads, water supply & sewer, land register, and urban planning

-Construction of hi-speed information highway connecting the City-Gu (Word)-Gun (Country) in progress

-Transportation information system to enhance transportation efficiency

-Establishment of119system to informatize emergency response system

-Establishment of internet exchange center, to prevent concentration of data transmission in non-centers

4. Towards Informatization of Daily Life

-Operation of culture & tourism information system to enhance convenience for tourists visiting Busan

-Operation of cyber marine museum to enhance the City image as a harbor city

-Provision of civil services via cellular phones and acceleration of daily life informatization through internet broadcasting

-Enhance convenience of city residents' daily life by promoting supply of "Digital Busan Card"

[Homepage]

Miyazaki City revamped its homepage in September 2001. You can download City Hall forms from the homepage and we are planning a a broad range of useful information for citizens. Commonly asked questions and popular topics can be accessed by cell phone (I-mode), and we have designed a fun page especially for children, called *"Kids"*. You can access this homepage with ease and simplicity, whenever and wherever you are.

We are also currently planning an internet page which can offer up to date information from our Natural Disasters Headquarters in the event of a typhoon, earthquake or similar civil emergency.

[Computerization of Education]

Next I will talk about the computerization of education.

There are 35 public elementary schools and 18 junior high schools in Miyazaki. All together there are about 28,000 children on the rolls. We believe IT education for the young is of vital importance to the future of our country, and city government should be partly responsible for this education.

[Computerization of Education]

Every classroom in every school in Miyazaki had a computer connected to the internet by the end of 2001. We aim to create a learning environment where IT education is complete and substantial.

Also the *Education Information Research* Center was formed in April 2002. The center is both a training institution and a network center for elementary and junior schools linked on the CATV light cable network system. The center provides educational material, resources, and training courses and facilities such as television conferencing for school teachers.

[Computerization of City Administration]

Miyazaki City is using telecommunications technology to provide electronic service. Currently the main challenge for an electronic City Hall is the process of developing every area of government. Just a few days ago we put a Citizens Basic Network into operation, the basis for electronic government in Japan. It seems that there are many opinions for and against a Citizens Basic Network, however our City has decided it would be a valuable common base for the creation of an electronic City Hall. Also we are currently experimenting with the new IC Card, which would enable documents and other administrative papers to be generated automatically.

Eventually we hope that the areas in which we can provide 24 hour service through an electronic network will increase, all paperwork between citizens and City Hall can be managed electronically; and general public information can be provided online.

Through computerization, we aim to make all City Hall services available 24 hours a day, 7 days a week.

[About E-Governance]

I believe the most important guiding ideal in the administration of municipal government is the synergy of

Self-reliance, Cooperation, and Public Assistance.

These principles require more than a simple equation where city servants implement policies, and private citizens live with these laws. Our guiding principles include the requirement to work together to solve our problems. I believe the principles of *Self-reliance, Cooperation, and Public Assistance also apply* to computerization and today's workshop on "E-Governance" .

[Miyazaki Community Support Site]

Based on this philosophy, Miyazaki aims to be the most advanced volunteering city in Kyushu by proactively utilizing the energy of citizens' volunteer activities. As part of our drive to promote volunteering, we have established the *Citizen Activities Support Center*. The *Center* is located in the Miyazaki Citizens' Plaza and is managed by *NPO Miyazaki*, a non-profit organization which coordinates citizens and volunteer activities. Computerization is an important part of our the service provided at the Center. We are currently grappling with the challenge of providing IT support for volunteer activities. Last year we launched an interactive network homepage, the Miyazaki Community Support Site, *Genki 365*. We hope this website will promote and encourage volunteering in Miyazaki City.

[IT Support Center]

I will now talk about computerization for citizens. Last year 16,000 people attended a basic PC skills training course, which covered internet, homepage and e-mail usage. This year the *IT Support Center* will expand its services to function as a general support center for increasing PC usage in the area. As well as teaching citizens in general, we hope these training courses will train future IT volunteers. We think it is a great idea for NPO to run the IT Support Center, because it helps to develop a community based on "people helping people".

[The Location of Information Communication Companies]

Miyazaki is linked to every area overseas by a large scale international underwater communication cable system. A communication network with mutual high speed links connects cities, towns and villages within Miyazaki Prefecture. The network is called *"Miyazaki Information Highway 21"*. Our communication infrastructure was put in place by a joint effort between private enterprise and local government.

This communication infrastructure has made Miyazaki feel less remote, however there have been difficulties. Accordingly, promotional bodies were formed to encourage private enterprise to become involved, and promote taxation to subsidize the venture

Now private IT enterprises and businesses offering communication services are developing rapidly in Miyazaki City.

Miyazaki City is already an international tourist resort city, and it is blessed with a beautiful natural environment. We hope that our rapid development in information technology will make Miyazaki an advanced city, and one of the best areas in Japan.

[In Closing]

In 2003, the *"National Multimedia Fair"* will be held in Miyazaki City. At the fair, people will be able to experience a wide range of multimedia technology first-hand.

I also hope the fair will provide another opportunity to further advance internationalization with cities in the Asia-Pacific area, encouraging friendship and partnership. I believe that mutual cooperation is an essential ingredient in any relationship. I would hope to build cooperation in every sphere of my work, including computerization for citizens in Miyazaki. That concludes this workshop.

Thank you very much.

Busan Metropolitan Government

The Development and Application of
'Digital Busan Card' for e-Governance

I . Necessity

1. Demand of the Era

The rapid diffusion of IT (Information Technology) in both public and private sectors has promoted household PC ownership and the widespread utilization of the internet. Overcoming temporal and spatial limitations, there has been significant changes in everyday lives and demands of the city residents, due to extensive information exchanges through diverse channels, and the expansion of economic activity areas. From this perspective, the application of the information technology in the area of local government administration is inevitable, in order to satisfy everyday demands of the city residents.

- **City of Busan Household PC Penetration Rate: 60.8%**
- **Internet Usage Ratio: 55.7%**
- **High Speed Internet Connection Service Usage Ratio: 75.8%**

2. Demand of the Society

With emphasis on convenience, economic efficiency, and speed for a better quality of life, the application of information technology in all aspects of local government administration is taking place, reaching beyond the traditional concepts of time and space. It contributes toward creating an urban system, focusing around and meeting the demands of the city residents (users) .

II . Informatization in the City of Busan

Responding to these changes and demands of the new era, the City of Busan began establishing the foundation for computerization of local government administration since 1973, and after 1976, computers were used in collecting local tax (property tax, automobile tax), accelerating the use of information technology in all aspects of local government.

With the objective of creating a digital city, a Busan informatization master plan (Digiport-21) had been prepared since 1999, and more than 70 projects in 5 fields (administration, industry, urban infrastructure, daily life, and construction of information infrastructure) are in progress, with total investments amounting to 338.8 billion Won until 2005.

Among these informatization programs for the City of Busan's administration, I would like to introduce 'Digital Busan Card' in more details, since it is the one that is most closely related to this session's topic, and is one which had significant impact on daily lives of city residents, while gaining public support.

III. The Development & Application of the Digital Busan Card

1. Background

To enable access to diverse public transportation modes including buses, subways, taxis, public parking spaces, and toll roads with a single card, the 'transportation card' had been developed and put into operation. Having gained acceptance of city residents, businesses, and banks of its convenience and effectiveness, the transportation card was further developed into 'Digital Busan Card,' equipped with electronic cash functions. It will act as a key infrastructure of citizens' informatization, appropriate for the emerging 21st century, the era of knowledge and information

2. Development & Usage of Transportation Card System

2-1. System Development

Transportation card is an integrated transportation payment system, which can be used to access subways, buses, taxis, and toll roads with a single card. Beginning with the preparation of the transportation card system masterplan in July, 1995, the system went into full operation in February, 1998-after two and half years period for system development & testing period, as well as partial operation in subways, city buses, and taxis from September 1, 1997. From August, 1998, the range of use was further expanded to community buses, toll roads, and public parking spaces.

2-2. Use Status

The supply of transportation card has been on the increase since the service entered into full operation for buses and subways since February 3, 1998. The sales volume reached 1,500,000 by August of 1998, representing 41.7% penetration rate of 3,600,000, City of Busan's total traffic population.

1Day Card Use Status by Transportation Modes (As of August, 1998)

Category	City Bus	Subway	Community Bus	Toll Road
Passengers	2,200,000	620,000	180,000	220,000
Card Use	1,000,000	350,000	50,000	10,000
Usage Ratio	45.0%	56.5%	27.8%	4.5%

There are 1,919 card charging stations - 73 in subway stations, 218 in banks, and 301 stations in Korea Federation of Community Credit Cooperatives (Saemaeul) - charging between 50,000 and 60,000 cards per day, total charging amount reaching 600 to 700 million Won.

2-3. Effects of Transportation Card Use

1) City Resident Users

City residents users can access public transportation means wherever and whenever with a single card, without bus or subway ticket. In addition, there are fare discounts for card users, offering both convenience and economic benefits.

Fare Discount for Card Users (One ride/One section)

Category	City Bus	City Express Bus	Subway	Community Bus	Toll Road
Normal Fare (Won)	600	1,200	600	600	200~700
Discount Fare (Won)	580	1,100	510/450	580	200~700
Discount Rate (%)	3.3	8.3	15/25	3.3	-

Subway: 15% discount for adults, 25% discount for students

2) Busan Metropolitan Government

After the operation of transportation card system began, the City of Busan was offered a rare opportunity to implement new policies to resolve traffic congestion, one of the major urban issues faced by the City.

① It provided a foundation to establish a transportation system focused on the public transit system, through improving its service quality and allowing implementation of a diversified fare system

② It enabled implementing more rational and up-to-date transportation policies. Contrary to the past when investigators were employed to manually collect transportation data, precise data on the number of users, number of transferring users, and revenues for each transportation mode, lines, and area (station) are now available.

③ By reducing time consumed in calculating and exchanging cash before entering toll roads, it contributed to ease traffic congestion.

3) Transit Operators

① The safety of bus operation has improved, by reducing inconveniences of the driver calculating fare and giving back changes.

② Compared to the size of the initial investments, both economic benefits and ease of operation & management have been gained. It reduced the production costs of bus tokens & subway tickets, reduced

the number of sales shops and the workforce size, and simplified management system.

Initial Investment (Business Expenses) : 200,000,000 Won (US$26,833,000)

- City Investment: 1,600,000,000 Won (1,000,000,000 in 1997, 600,000,000 in 1998)
- Busan Urban Transit Authority (Subway) : 3,430,000,000 Won
- Priv Private Sector Investment: 27,400,000,000 Won

  (Comprising Private Sector: Bus 3,600,000,000 Won, Taxi 5,330,000,000 Won,

  Dongnam Bank 13,500,000,000 Won, Other 720,000,000 Won, KICC 1,000,000,000 Won)

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4) Management Banks

Banks benefit from the charged total in the card system which can be invested elsewhere, and the charging fee (1%of charging amount). Participating banks benefit both directly and indirectly, from increased investment size, better profitability, and from owning incentives to attract customers by providing more convenient services compared to other banks.

3. Expansion of Range of Service: Digital Busan Card

With the experience of successful operation of Busan's transportation card system services, and based on extensive information infrastructure, a convenient and safe hi-tech card system incorporating electronic cash functions had been adopted in the year 2000. It was to meet the city residents' demands in the digital information age, introducing a system that not only provides non-stop, one-stop administrative services, but one that can be used in daily lives, both in real setting and in cyber space.

3-1. Digital Busan Card & Its Range of Use

Whereas the use of transportation card was limited to accessing transportation means, Digital Busan Card, in addition, functions as electronic cash, to be used in diverse areas: when requesting civil service, in culture·tourist·medical·sports facilities, in payment of taxes & charges, in accessing daily life information, in retails and e-commerce. Also, charging additional amount is wherever possible, as long as an internet terminal is available. It is an ideal system for busy city residents, eliminating the need to carry cash.

Digital Busan Card Usage (As of June 30,2002)

* Transportation area: city bus, community buses, subways, toll roads, public parking spaces
* Retail: 5,600 member shops
* Internet, etc.: 14,000 Internet terminals, 918 Charging stations, 25 automated civil documents system
  (kiosks)
* Card Supply: 620,000

Card Supply Quantity (As of Aug.2001)

Category	Total	Adults	University Student	Middle/High School Students
Total	4,747,000	3,146,000	633,000	968,000
Transportation Card	4,138,000	2,700,000	548,000	890,000
Digital Busan Card	609,000	446,000	85,000	78,000

1Day Card Usage by Transportation Modes (As of Aug.2001)

Category	City Bus	Subway	Community Bus	Toll Road	Taxi
Total	1,023,000	480,000	158,000	131,000	282
Transportation Card	940,000	438,000	138,000	119,000	282
Digital Busan Card	92,000	42,000	20,000	12,000	-

3-2. Operation Results

1) Transportation Area

Digital Busan Card System, in addition to integrating payment systems of all transportation modes, is leading the way in establishing advanced ITS (Intelligent Transportation System), including TIMS (Total Information Management System) for high-tech, intelligent and integrated management of bus operations, AFC (Automatic Fare Collection System) for subways, and ACT (Advanced Call Taxi System) for taxis.

2) Issuance of Civil Documents & Administrative Service

To request and receive a civil document, a Busan resident currently has to either visit in person, call by phone, or make a request via City · Gun (County) · Gu (Ward) Office internet website. However, the Digital Busan Card can process user authentication and fee payment simultaneously through PC's internet terminal, providing remarkable services in issuing civil documents. In addition, other services such as public information provision, tax & charge payments, and daily life informatization services are provided.

3) Tourism Service

The card system is used by the domestic and international tourists visiting Busan, while they are visiting parks, theme parks, and museums, as well as sports stadiums, exhibition centers, various amenities, and shopping. It thereby contributes to enhance their convenience.

4) Welfare Service

Customized information for senior citizens, low-income, and handicapped will be stored in the Digital Busan Card, to provide discount or fee exemption services when they access public transportation, entertainment or medical facilities, to provide user-oriented welfare services.

IV. Proposal

Digital Busan Card is being adopted in other Korean local governments-currently, four city/provinces, including Ulsan, Jeonbuk, Gyeongnam, and Gyeongbuk are either partially or fully operating the card system. It is gradually gaining national acceptance.

Adopting this system in member cities of the Asian-Pacific Summit will make visiting other member cities as convenient as visiting cities in the same country-it is anticipated to significantly contribute to promoting exchanges among the cities. In addition, it will take the informatization level of the adopting city to the next level, considerably improving the convenience and quality of life for the city residents. It is proposed here that we jointly establish this system, starting with desiring cities.

Dalian

To Upgrade City Construction and Management Level
by Effective Utilization of Electronic IT

Good Morning, Ladies and Gentlemen.

It is my great honor to be present at the 5th Conference of Mayors of Asian-Pacific Region and to discuss the subject of modern city construction in the 21st century.

I am now in capacity of Major of Dalian city which represents an important coastal city in China, well-known partially for its charming ambient and salient climate. Besides, it also functions as one of the key ports in north China and hub of industry, trade, tourism, finance and information.

Globalization and information technology have recast the role of information system in every field and cities worldwide have put the information technology high on their agenda. Over the years, Dalian has put much weight on the application of information technology to boost a more cost-effective city construction and management which has resulted in a profound change to the city. This contributes to why Dalian was declared as one of the 2001's World 500 Top Cities by the UN Environmental Planning Department. In the following years we will pursue the aim for the escalation of city construction and management with all-round development in information technology.

The soaring power of information technology, especially the application of the Internet, will shape city construction and management in future. Now China has celebrated its entry in WTO. According to the principle of no discrimination, open and equal competition of WTO, government should have a rational intervention and strong monitoring on the market and efficient regulation on the macro economy, and government should have consistent and open policies and actions. This requires government's transformation in function from traditional government to electronic government. Therefore, Dalian and other cities of China have been exploring the application of information technology to spur effective management and by which provide the foundation for high-efficient, honest and practical government service, and more strict and efficient monitoring. Only in this way can city's economic advancement and upgrading keep the pace of the explosive development of world economy. At present, Dalian has laid a good foundation in information technology of: the leading-edge communications infrastructure, solid communications networks that cover the urban and rural areas, program-controlled information exchange and digital transmission; all nationwide communications businesses have put up their information networks in Dalian that contribute to Dalian's network resources, especially the integration of telecommunication network, computer network and broadcasting network enable the smooth exchange of local information. Dalian government has established its independent service platform based on these networks resources so as to provide a window to let the public access centralized government service information that almost accounts for 50 percent of all the government operations. The increasing perfection in network infrastructure has created advantageous conditions for the application of information technology in urban management. Also in the past years Dalian government has

realized a wide array of impressive application of information technology in the finance, revenue, public transit, business, trade, education, science and technology, government departments, social service, insurance, etc.

Finance and revenue information networks established in Dalian include bankcard system, instrument allocation and settlement system, linking between local finance network and the electronic bank, bank credit registry and query system. To date, all counter services of banks in Dalian are electronic and network-based, and network-based offices accounts for over 90 percent of all. Revenue verification, electronic tax report and linking between tax authority and bank have taken their initial form that will pave the way for Dalian's extensive utilization of computer, network and information technology in finance, revenue operation.

Information technology's use in public transit, especially the One-Card-Pass for-all symbolizes modern metropolitans. Dalian adopts the dual-interface CPU card as the starting point for the city One-Card-Pass system. The public transit One-Card-Pass represents the first-stage of the project. By now, the card has been used in 65 routes on 2,600 buses and about 500,000 cards have been sold to passengers. Passenger can take any bus in the city with the card that bring them so much convenience. Our aim is that in five years, citizens will be able to use the card not only to take bus, taxi, but also to pay utility fees and their small-sum shopping.

Networks and information technology were utilized in Dalian's business and trade as early as in 1996: computers and tellers have been widely used in domestic and foreign businesses, shopping malls, distribution centers, chain markets and business-centered computer networks of different sizes have been established accordingly since then. Now, markets and hotels with business area over 3,000 m² have all used computers and tellers in their daily work and all shopping facilities completed after 1997 have realized network-based management.

Dalian is backed up with a well-established science and technology network. This involves the self-made database and linking with worldwide professional databases and by now hundreds of databases have been established for reference and query by organizations and institutions in Dalian providing necessary science and technology information and relevant data for the government in their decision making process as well information for the whole community.

The education information project was initiated in 2000 and to present broadband, high-speed and multimedia networks have been established, especially schools have linked to broadband networks. Dalian Education Network started its operation on Sept. 1, 2001 to provide wide range service including web service, vod subscription, bbs, personal homepage, e-mail, and office information management. Besides it provides various customized and animated multimedia-teaching resources.

Government departments have been aggressive in enhancing office automation. Information technology has been extensively applied in government service aspects to carry out and streamline the administrative examination, monitoring, public service through networks. An example is that computer-aid management system for labor insurance, medical insurance and unemployment insurance have been implemented that provide effective technical support to the routine work. Dalian has constructed a civil affairs network covering city, district, county and community by which it has realized the network-based management in minimum living expenses and rewards to good birth control families. The community service-call center is

under construction. The housing fund management information system provides reliable information of employee public fund to all organizations and institutions around the clock.

Information technology has greatly promoted the public service level. Dalian's traffic guidance and control system integrates signal control and monitoring information with the traffic information management system, which enable the real-time control on traffic conditions and in-time dissemination of traffic dynamics that reflects the latest technology in international scale. Dalian's radio monitoring and management system on streetlights will have an automatic check on the operation of 76,000 streetlights dispersed in 219 cells within over 80 km^2 urban area every 20 minutes, and this will ensure the automation in streetlights switch, check, troubleshooting, query and statistic.

Besides, a stream of networks has been put into operation in recent years: Dalian Tourism Network, Dalian Real Estate Transaction Network, Dalian Agriculture Network, Dalian Fashion Festival Network, Dalian Exhibition Network, 148 Legal Service Hotline, 12315 Consumer Complaints Hotline, Women Reemployment Network, Mail Service Network. All have contributed to convenience of access to information by the public.

The conference offered me an opportunity to learn so much valuable experience in the application of information technology in city construction. In future, Dalian will commit to establishing broadband networks and tapping on the application of information resources for electronic government service, electronic commerce and electronic service, hence to consolidate city service and management function, to heighten living level and environment quality. Thus we will be able to furnish a favorable environment for the application of information technology in each segment, business and society, as well as in national economy toward a digital Dalian.

In following years, Dalian will establish several databases in aspect of city's public resources and environment conditions and tap on the application of Geographic Information System (GIS), Global Positioning System (GPS) and Remote System (RS) in utility management including water, gas and electricity, and infrastructure construction and management such as urban transport, urban planning, real estate development and environment protection, so as to facilitate our digital management in geography, public resources, utilities, and public service that are critical to city planning and management. We will accelerate the government function transformation so as to offer open, efficient and quality service and achieve a network-based modern government management by exploring information resources and information technology in government operation. Our first step shall start from electronic government service. We will push the development of electronic service to enhance public service level. We undertake to provide network-based education, medical treatment, community service and banking service to all citizens by 2005 through establishment of electronic and networked environment in aspect of education, travel, environmental protection, health, social security, finance, and utilities.

Information technology is reshaping the world economy and social development. It is also the foundation to optimize China's industrial configuration toward a more industrialized and modern nation. Our aim is a digital and information technology based Dalian. For this aim we will ever push communication and collaboration with all cities in Asian-Pacific region and make our own contribution to the development of information technology in global scale.

Finally, I hope the conference will be a great success.

Fukuoka

Fukuoka City's Path to a Future Built with its Citizens

Thank you for the introduction. My name is Akira Watabe, Chief Executive of the General Affairs and Planning Bureau, Fukuoka City. Currently, Japan is considering remodeling its cities based on e-Governance by fully utilizing IT. In my talk today I will report on the current status, tasks and prospects of Fukuoka City as we embrace e-Governance together with our citizens.

First, let me explain the path Japan has taken to embrace information technology. The Japanese government is promoting the strategic potential of the IT revolution, and established the "Millennium Project" in December 1999 to lay the foundations of electronic government by 2003. In January 2001, the government introduced the "IT Basic Law" to shape a society boasting advanced information and communication networks. The "e-Japan Strategy" was also begun in 2001, aiming to make Japan one of the world's most advanced IT nations within 5 years, and was followed by the "e-Japan Priority Policy Program" in March the same year. Further efforts are now being made to develop the e-Government infrastructure, including "e-Japan 2002 Program" begun in June 2001. This program highlights the urgency of creating electronic City Halls for local authorities.

Rapid developments in IT are now being made in the information and communication sectors. Further advancements in IT will not only change the way we work, for example in satellite offices or SOHOs (small offices/home offices), but will also improve efficiency in production processes and in business transactions. Drastic changes are even expected on a personal level and in day-to-day communication. In response to this social trend marked by the growing prevalence of IT, the government of Fukuoka City aims to create infrastructure that suits the way local businesses and individual lifestyles can benefit from IT. We also aim to fully utilize achievements made in IT research and developments, in the interest of the city's future growth.

As part of its efforts to stay abreast of Japan's IT development strategies, Fukuoka City in March 2002 mapped out the "Fukuoka City Information Technology Plan 2002-2004." This plan contains the basic policies, actual schedule and details of how the city will realize a more information-intensive administration, and intensively restructure regional information networks. While fully considering the views of the public, Fukuoka City will use this plan to proceed with various measures. The two main objectives of these measures are: "realization of electronic city hall" and "promotion of regional information-intensive communities."

The plan's first objective, to realize an electronic city hall, entails two facets: one, responding to the diverse needs of Fukuoka's citizens while improving their standard of living, and two, achieving greater transparency in the city's administration. Fiscal 2005 is earmarked as the goal by when to accomplish the base for these improvements.

Several measures have been proposed to make the electronic city hall a reality.

One of the measures is to realize an integrated information system for public works support and electronic procurement. This will involve computerizing all procedures for public construction works, and using PCs and the Internet as a tool of communication between the administration and contractors. Procedures to be computerized are: registering contractors, planning, designing and estimation of the work; bid-tendering, deciding the winning bidders, paperwork for contracts, supervising work, receiving drawings, conducting work inspections, managing drawings, planning maintenance and so forth. This method of doing away with conventional paperwork is expected to improve work efficiency, and reduce costs for both administration and contractors. Also, the procurement process will become more transparent and fair.

The other measure being considered to realize an electronic city hall is the promotion of electronic application and report procedures. At present, the public must visit ward offices in person to have copies of certificates of residence issued, apply for construction authorization, and for other official matters. Once these services can be carried out electronically, applications and reports can be issued and processed over the Internet. People will be able to use these services anytime without visiting ward offices, making administrative procedures quicker and more convenient.

I have introduced two out of many measures being considered to realize an electronic city hall. However, due to a tightened budget, Fukuoka City cannot implement all of these at once. By inviting feedback from members of the public chosen as city monitors, we aim to prioritize those measures that reflect the wishes of the people. Our aim to realize an electronic city hall will be carried out efficiently and hand in hand with the people.

The other objective of the Fukuoka City Information Technology Plan 2002-2004, which is to "promote regional information intensive communities," includes the Island City project. Island City is a man-made island measuring about 400-hectares, currently being reclaimed in the eastern Hakata Bay. When it is complete, Island City is envisioned to serve as a global gateway connecting Asia and the world with Fukuoka. It will be a place where people, commodities and information will converge, and will be a futuristic model city of the 21st century. By designing the business environment at Island City specifically to suit the needs of the IT industry, Fukuoka City aims to encourage IT-related industries to establish their premises there. This will make Fukuoka a model example of regionalized development of the IT industry.

The city also plans to make Fukuoka an advanced information-intensive "Model IT city" by providing advanced services via high-speed, large-capacity information and communication infrastructure. This in turn will nurture the environment for incubating new IT-related businesses to emerge, making Fukuoka a 21st century city and an information center for Kyushu, Japan and rest of the world.

Steps taken to achieve this include creating an infrastructure with fiber-optic networks and iDC, nurturing human resources and attracting IT companies and research and development functions, of which Island City will be a focal point.

Geographically, Fukuoka City is close to the Asian continent and I think it is important for the city to take advantage of this feature. An example of how beneficial Fukuoka's location can be is the Japan-Korea IT Optical Corridor, a fiber optic cable that started connecting the cities of Fukuoka, Kitakyushu and Busan in March this year. The IT Corridor has much potential to nurture industries related to music and digital contents, and will serve a variety of international exchanges not confined to the IT industry.

Next, I'd like to outline some of Fukuoka's attractions. The area where this meeting is held is called Tenjin. Fukuoka City Hall is located nearby. North of Tenjin is Hakata Bay. To the west is Fukuoka Dome comes into view, the home of Fukuoka's pro-baseball team, the Daiei Hawks. Nearby are Fukuoka Tower, Fukuoka City Public Library and Fukuoka City Museum. They are all located in an area called Momochi, which I will talk about now.

This area is called Fukuoka Soft Research Park district. Six buildings belonging to leading Japanese and international hi-tech manufacturers are located here. Several local information businesses also have their offices here, in an office complex called Momochi Cube. A number of research institutes and IT businesses are located at Fukuoka Soft Research Park, where they conduct valuable research in IT with the aim of improving our everyday lifestyles. One of the research groups located here is the Institute of Systems & Information Technologies, established through international cooperative efforts between industries, academia and administrations in Asian and Pacific regions. The institute is conducting R&D into system information technology, information gathering and providing, and human resources development. The institute's cutting edge research into system LSIs, networks and interfaces is particularly noted. Also at Fukuoka Soft Research Park is a company called FUKUOKA SRP Co.,Ltd, which was established to nurture information-related industries and support R&D activities by collaborating closely with related organizations. This company takes a central role in the information industry.

Fukuoka City is also working to popularize cable television. One way of doing so has been to utilize community channels, which broadcast information designed to meet the needs of a particular region. In April 2002, the city began broadcasting programs containing local information on events, cuisine, and messages from the administration information, such as interviews with the local mayor. As a result, localized information has become more readily available while communities have become more active, as seen in residents' increased interest in topics and activities exclusive to their area. Cable television not only offers multi-channel broadcasts, but also can provide the Internet and telephone services. For this reason, it is being introduced to community and civic centers that are often the main facilities in regional towns.

Fukuoka City will also introduce PCs and establish the Internet connections at community centers in every school district and at civic centers in each ward, since public facilities serve as effective media to stimulate local communities. The idea is to use information to support interaction between the residents of a locale, volunteer activities, and activities organized on local residents' initiatives. Through these efforts to enhance information infrastructure, the city envisions actively supporting community activities, which will help vitalize local communities.

Next, I will touch on measures we have taken to deal with the problem of the digital divide. In the IT era, having IT skills is vital to harnessing the benefits of IT. To give its citizens opportunities to acquire such skills and qualifications, Fukuoka City will introduce PCs and the Internet connections at community and civic centers. This will complement the "community revitalization" aim of introducing PCs, which I have already outlined. PCs and the Internet connections will also be introduced at elementary, middle and high schools, as well as schools for children with special needs, to ensure all members of the public have the same opportunities to learn about IT. We will also offer more support to NPOs, volunteer groups and community groups who hold classes about IT on their own initiative.

Here I would like to remind you that these IT measures I have shared with you are merely a means of achieving our objective-the objective of responding to the increasingly diverse and complex needs of our citizens using IT and to enrich their lives. Now that the public has ease of access to administrative information, they can participate in the city's future development more actively. The municipal government aims to build a partnership with the citizens based on strong trust nurtured through such civic involvement. By continuing to assure freedom of information and by promoting bi-directional communication with the people, Fukuoka City will grow together with its citizens.

Before I conclude my talk, I would like to make a proposal. Seizing this opportunity, I propose linking the homepages of each of our cities for administrative exchange purposes. There may be some problems with text compatibility, but if English versions are available, we will be able to introduce each other's cities in own city homepages. This will deepen the relations between our cities.

Allow me to introduce the Fukuoka City homepages. We have four languages: English, Korean, Chinese and Japanese. Along with tourist information, events and business information, the homepage provides links to the homepages of Guangzhou, Ipoh and Busan cities, which Fukuoka City has sister or friendship ties with. Here is a sample of the English homepage. I hope you will visit our homepage some time soon.

Thank you for listening to my report on Fukuoka City.

Guangzhou

E-Government: Innovation in Urban Construction and Management
— IT Application in Urban Construction and Management
at Tianhe District, Guangzhou

Tianhe District is an urban center and CBD (Central Business District) of Guangzhou under development, where there are densely-located universities, colleges and research institutes. High-tech industries develop quickly, especially, software industry develops very fast and has gradually become Tianhe's pillar industry. Guangzhou Tianhe Software Park is one of the China's ten national software industrial bases, where many world famous IT enterprises have set up their branches at the Park. Among its 1.1 million population, 26% have college or above education, 68% families have computers, home internet rate is 37%. To have exchanges and to obtain internet services through the internet have become a part of citizens' life. At the same time, Tianhe District is a new area, its urban construction has been changing with each passing day. Faced with such an industrial structure, population structure and progress of the urban construction, we have to break through traditional thinking and ways, we have to create new ideas, and we must probe an optimized model for urban construction and management by improving government's administrative efficiency and citizens' active participation in urban construction and management.

How to build an efficient and pragmatic e-government and how to bring it into full play in modern urban construction and management have become more and more important. On the basis of China's administrative reform and our own practices, and drawing on the experiences of the developed foreign countries' administrative reforms and the modern enterprise management ideas, we have made some useful explorations and tries in practices and found some thinking, principles and ways to build an e-government with Tianhe and time characteristics. The general thinking is "Three Combinations", i.e. "combining technical innovation with managerial innovation", "combining enterprise management with government operation" and "combining government guide with market participation", special attention is paid to technologies, management and system. There are two guiding principles: one is "Unification", i.e. unified planning, unified platform, unified standards and management, so as to build a flat and economic e-government, to bring information scale into full play, and to promote the flow and share of the information resources; the other is "application", i.e. the application is the key for e-government. At the same time, we keep blazing new ideas and summing up experiences in building an e-government. We make full use of rich social resources and professional market services by carrying out outsourcing so as to promote the application of the e-government and the change of the government functions. In such a way, the e-government has effectively improved the administrative efficiency and promoted public services, so the public trust in the government is greatly enhanced. The main achievements are as follows:

1. Providing the government with new means for urban construction and management. With the quick urban development, the traditional means of the government to administrate the city cannot meet the requirements and the problem of passively coping with the situation appears day by day. In order to solve the problem, Tianhe District Government put forward the solutions to strengthen the information construction of government departments and the construction of the administrative information system. So we can administrate the city through the information system. At present, Tianhe District bureaus for urban planning, land and resources, construction, environment protection, sanitation and antiepidemic have set up their own electronic administrative subsystems to manage the city, which are supported by the same platform and database. For example, the affairs relating with the construction project management system of the District Planning Bureau, the building property title certificate system of the District Land and Resource Bureau and the environment monitoring system of the District Environment Protection Bureau can be completely handled on the information net, so the management level is well improved. The "Health Certificate" handling system of the District Sanitation and Antiepidemic Bureau issues health certificates to 100 thousand employees each year, but the time for issuing one certificate has been shortened from 8-10 days to 2-3 days, furthermore, the false certificates were eradicated due to the use of electronic imaging and bar code identification techniques. It provides a guarantee for city's proper development.

In addition, there is a large flowing population and a large vehicle flow at Tianhe District which covers a relatively large area, there are security problems due to lack of enough police force. So when we strengthen the traditional "personal prevention" we intensify the security with electronic equipment. We have installed video cameras at the main roads and natural villages where many cases occurred. This has gained good results. This kind of "technical prevention" will play a bigger role in the future while the urban area at Tianhe is being further expanded.

2. To promote the openness of the government affairs by e-government, and to strengthen the government ability to handle the problems in urban management. The use of modern IT to disclose the government information, to promote open administration and to enhance supervision is an important way to improve government's responsibility and adaptability to changes. We have publicized the functional structure of the government, service guide, regulations and laws through our website (http://www.thnet.gov.cn) for more than 3 years. The charging items and standards and fees are also published on the website. The openness of the functional structure of the government and the service guide have eliminated the phenomena of the "asymmetric government information", and broken through the "structural maze" and "procedure maze: of the government, which persecuted the people in the past, the "time cost" and "recessive cost" to handle matters by citizens were reduced. The image of a person-oriented and affine government is gradually formed. At the same time, we periodically take site pictures on bad behaviors and things, and publish those pictures printed with time, location, the government department in charge through our website. Furthermore, the measures taken by the related department to solve the problem and the result pictures taken on the spot are all published on our website together with the pictures mentioned above, so as to strengthen social and

government supervisions. All those have gained good effects and are greatly supported by the citizens. We have also published the procedures of how to obtain the construction project licenses and the collective building property title certificates of the countryside on our website. Those information tells people when and how to handle the license and certificate, so it shows people the expected services given by the government, and it also enhances the responsibilities and urgency of the related government departments, thus improving administrative efficiency of the government in the urban management.

3. To form a common participation system by the government and citizens, to increase communications and exchanges between the government and citizens so as to attract citizens to participate in the urban construction and management. During the period of social changes, how to improve the public trust in government and government's call effectiveness is an urgent problem to be solved in promoting economic and social development, including the enhancement of the urban construction and management. Only the citizens actively participate and assist can the policies and measures taken by the government be completely carried out. In our view, it is an important measure to establish a "Two-Way Response System" between the government and citizens, so it will be convenient for citizens to participate in the administration and discussion of government affairs and to exercise supervision. For this purpose, we have opened "District-Head Mail Box", "Citizen's Board" and "Government Call Center", which are used to communicate with the citizens. Up to now, we have received more than 3000 messages through the "District-Head Mail Box" and "Citizen's Board", 93% were handled in time. We have received over 70,000 calls through the "Government Call Center" in less than one year, 95% were handled in time. Citizens can report and reflect the problems and suggestions to the government departments through those channels, now 1,446 (including phone calls) messages have been received, which rank first among all other channels. Recently, citizens have actively participated in the location selection of the pedestrian bridge and have made many precious suggestions and proposals.

I would like to stress two points on the government call center. First, the Government Call Center is connected through the phones (connected with the Internet), so it will provide equal and fair services for those who are not netizens, especially poor people, and it will lay a foundation for a sustainable and healthy development of the E-government. Second, the Government Call Center is not directly operated by the government, but outsourcing by the enterprises. Public services are provided 24 hours a day by the enterprises with fine culture, strict management system and quality services, which are not only supported and welcomed by the citizens, but also have changed government's traditional administration, and provided good experiences for our deeper reforms.

Active support and participation of citizens have promoted great changes in the urban environment at Tianhe District. Representatives of the active citizen participants were invited to participate in a discussion meeting between the government and citizens in May, their enthusiasm to participate in the deliberation and administration of the state affairs through IT has further strengthened our confidence to improve urban

construction and management by IT means. We are constructing two systems this year, one is government data center and the other is online parallel approval system. On one hand, through large-scale date collection and construction of GIS (Geographic Information System), it will provide references for scientific decision making in urban construction and management, furthermore, it will provide better information services for enterprise operation and citizen life, on the other hand, we shall make full use of IT to reorganize and optimize government affairs flow, to form an achievement appraisal system for the government and an "One-Station" service system, so it will provide technical guarantee for the standardization of government administration and urban management.

Although we have only made some progress in the process of the E-government construction, we really realize that it has effectively improved government's efficiency and city's scientific and standardized management. We shall make further efforts to explore the IT to be used for urban construction and management. We also hope that other cities could give more helps and supports to us.

Thanks!

Ipoh

e-Governance ~IT & City Planning~

EXECUTIVE SUMMARY

Information and communication technology (ICT) is changing the way society functions. Internet is the biggest revolution in human history. The impact of ICT can be felt in all economic and social activities in every conceivable manner. The convergence of all forms of communication on the digital playfield is opening up immerse new possibilities of achieving speed, versatility and space-time independence.

Ipoh City Council is no exception to this phenomenon. In the post liberalization era local government across the country have been engaged in improving internal efficiencies, responsiveness, coordination and integration between various government departments, citizens and business community. The global trends also point out to the emergence of e-Government revolution after the Internet and e-commerce revolution.

We often hear a number of words coined to describe this newly founded love between the governments and computers-"Good Governance", "SMART Government" and "e-Government".

"Good Government connotes the widest meaning of the three phrases. It encompasses the entire process of public administration, the processes underlying the formulation of public policies, human resource development efforts required for re-skilling the government machinery prioritization, efficient management of public resources and above all re-designing the various instruments used to realize the concept of 'citizen-centered bureaucracy'.

"SMART Government" is an acronym for Simple, Moral, Accountable, Responsive and Transparent Government. It is the image of an ideal government through the eyes of its citizens.

"e-Government" is a subset of the concepts of Good Governance and SMART Government. It is the very specific task of using the tools offered by ICT in various aspects of the process of governance with the objective of achieving efficiency, transparency, accountability, and user-friendliness in all the transactions that the citizens and businesses contact with government in providing digital interface in the G2C, G2B and G2G interactions.

But in the Malaysian contact, the whole idea is not so easy to implement. A number of arguments are addressed against the concept:

"It helps only the rich"

"It can't be done"

"Who needs e-government when labour is so cheap"

"The laws are hurdle"

"The existing infrastructure can't support"

"It is too expensive for Malaysia"

Ipoh is confident of meeting the challenge of providing high quality government services to citizens businesses and government department of providing equal access and equal treatment to the rich and poor, of bringing in enhances transparency, speed, reliability and consistency in handling transactions, of opening up immerse scope for offering new services, for instance "anytime, anywhere and anyway services" to the clientele, of making the concept of "citizens charters" a reality.

Ipoh Virtual City (IVC), launched on 20 March 2000 is pioneering effort, which placed Ipoh ahead of other Asian cities. The concept complements the needs of MSC, which was introduced to provide Malaysia with the leading edge technologies to face the advent of globalization and open market concept.

Ipoh Virtual City is administration or electronic control for government, business and community to carry out the city and obtain the benefit together. A Virtual City offer city services without restriction at anytime, anywhere and anyway with **24 hours a day and 7 days a week** access to City Council corporate services and real-time transactions.

The ICT-driven approach adapted by Ipoh City Council allows it to fulfill clients' needs by the introduction services at all time, from any location through its three mediums, which are Internet, telephone and kiosks. Ipoh City Council have introduced the concept of Virtual City to facilitate the citizens to interact with the council from any location and at any time by these three medias:

◆ *Transaction Kiosk*

- Kinta City Shopping Complex

- Perak Tourism Information Centre

- Ipho City Council lobby

◆ *Telephone (Interactive Voice Response) IVR*

- 05-2442489

◆ **Internet**

- www.mbi.gov.my

◆ **Payment Method**

- VISA

- MASTER CARD

- Maybank Kawanka

- Prepaid Ipho Privilege Card....soon

The e-government application in Ipoh City Council involves the development of Local Area Network (LAN) and Wide Area Network (WAN) . The system functions as a database for the City Council staff requirements.

Services Offered:

◆ **e-PAYMENT**
- ☐ *assessment*
- ☐ *business license*
- ☐ *compound*
- ☐ *rental*
- ☐ *processing fees*
- ☐ *etc...*

◆ **e-SUBMISSION**
- ☐ *business license application*
- ☐ *planning permission application*
- ☐ *certificate of fitness application*
- ☐ *etc...*

◆ **e-BOOKING**
- ☐ *sport facilities*
- ☐ *premises*
- ☐ *equipment*
- ☐ *etc...*

◆ *DIGITAL LIBRARY*

◆ *IPOH PRIVILAGE CARD*

Virtual City Benefits

- To give one more alternatives or options for the citizens to settle their Ipoh City Council bills without an office hour restriction that is from 8:00 a.m. until 4:30 p.m.

- Long time of business hour can increase the council income collection

- Decrease the car-parking problem within the council area

- Saving overtime cost and workforce

- Towards the electronic commerce (e-Commerce) and electronic

  government (e-Government)

Tangible Benefits

- Eliminates Barriers

- Convenience payment System

- Faster Collection

- Cost Time Saving

- Elimination of new branches

- Better staff deployment

- Replacement of routine task

- MSC infrastructure cohesion

Intangible Benefits

- Citizenry benefits-regardless of their economic status, every citizen share the benefits of the information age

- Incubation center for services that create an online community

- Interaction and consciousness activated through ICT between community and city administration

Conclusion

Ipoh Virtual City is going to complement the "Visionary", "Ambitious" and "Well-Managed Multimedia Super Corridor initiative

(7) Sub session 4

Presented Paper (Preliminary draft) ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

Kitakyushu

Cooperation of industry, academia and government in Kitakyushu City
(Case of Kitakyushu Science and Research Park)

1.History of Kitakyushu and regional challenges

In 1901, the blast furnace of the government-operated Yawata Steel Works, Japan's first modern steel mill, was ignited. Since then, Kitakyushu City has played a major role in modernization of Japan as the city of "manufacturing," placing an emphasis on the production of basic materials, such as iron and steel, metal and chemical industries. After the mid-1970s, an increasing number of major manufacturers of electronics-and automobile-related industries established their facilities in the City, where basic material industries as well as the machinery and metal industries making producer goods had traditionally existed. In accordance with this, more and more local businesses made an entry into the fields of electronic components, machine work and metal processing. Consequently, the processing and assembly industry's share has been gradually growing in recent years. However, while the focus of the manufacturing industry shifted from supplying materials to creating high added value, Kitakyushu City's existing industries were in decline and it was difficult to create new industries. This was due to the absence of sophisticated technical experts and researchers as well as research seeds, hindering the city from strengthening its technical capabilities, because of the following problems concerning the intellectual infrastructure: 1) Kitakyushu City had no university and fewer higher education institutes than other major cities; 2) although Kitakyushu is an industrial city, it had a limited number of science and technological researchers; 3) The intellectual infrastructure was not fully utilized; and 4) technical colleges offered only restricted educational research fields.

Meanwhile, in our city, which has developed as a manufacturing district, many citizens still take pride in the city's technical capabilities, and hope that Kitakyushu will be reinvigorated as a city of "manufacturing." Therefore, Kitakyushu City concluded that it would continue to promote existing industries, by making use of its precious assets, that is, technologies and human resources that the city has nurtured thus far, aiming at developing into an intelligent and industrial city of the future. In addition, our city realized that it absolutely had to develop the intellectual infrastructure in order to upgrade technology and to create new industries.

2. Development of Kitakyushu Science and Research Park

(1) Project purposes

As a part of its efforts to address these challenges, our city has implemented the development of the Kitakyushu Science and Research Park (KSRP). This development project has two purposes. One is to

establish a center of academic research in Asia, making use of the city's geographical advantage of being close to other Asian countries, and real accomplishments produced by international technical cooperation in the field of environmental protection. The other is to create new industries and to further develop the technology by combining the advantages of the city's industrial techniques, which are integrated on the largest scale in western Japan, with the cutting-edge research and development capabilities of universities and research institutes.

(2) Project to develop the base for Kitakyushu Science and Research Park

To develop core facilities, phased construction of the foundation is under way, based on the land reallocation program. We seek a comprehensive community development, with a view to integrating education research institutions regarding advanced technology and to supplying favorable housing, while making use of the surrounding natural and urban environments.

Master plan: 335 ha (first phase: 121 ha [University zone: approx. 35 ha], second phase: 136 ha, third phase: 68 ha)

(3) The Innovative University Complex

The "Innovative University Complex Project" is intended to integrate research institutes as well as national, municipal, and private universities that are conducting education and research regarding advanced technologies. The Project allows these colleges and institutes, which are playing a nuclear role in the KSRP, to carry out educational and research activities in their respective responsibilities and costs, in cooperation with each other, under the common philosophy and policies, through joint use of facilities and equipment, for example. Specifically, the organizations participating in the KSRP include: the Faculty of Environmental Engineering, University of Kitakyushu, which was opened in April 2001; the Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology; the KYUSHU Laboratory, Advanced Research Institute for Science and Engineering, Waseda University; Cranfield University (UK) at Kitakyushu; GMD-Japan Research Laboratory (Fraundhofer Gesellschaft); Fukuoka Research Center for Recycling Systems; Fukuoka University Graduate School of Engineering Recycling and Eco-Technology; and the Kitakyushu IT Research & Development Support Center of the Telecommunications Advancement Organization of Japan (TAO).

In addition, the Graduate School of Information, Production and Systems of Waseda University is scheduled to open in the KSRP in 2003.

(4) Mechanisms to promote collaboration among industry, academia and administration

1) Kitakyushu Foundation for the Advancement of Industry, Science and Technology (FAIS)

FAIS is a supportive organization established in cooperation among industry, academia and government. Its objective is to comprehensively operate the entire KSRP and to strengthen its educational and research functions, while effectively deepening cooperation among universities and research institutes, and between businesses and universities, which all have different organizational cultures.

a. Campus Administration Center (Administration and Planning Department, Science Information Service Department)

This Campus Administration Center carries out the unified operations of the Kitakyushu Science and Research Park. It administers jointly-used facilities within the KSRP, and promotes partnerships and exchange among the universities participating in the KSRP.

b. SoC Design Center (Design Research Department, Human Resource Development Department)

In order to promote the integration of the electronics industry, particularly of companies which design semiconductors, the SoC Design Center focuses its efforts on the training of manpower, the support to establish venture enterprises, and the promotion of collaboration between industry and academia.

c. Industry-Academia Cooperation Center (Industry-Academia Cooperation Department, Technology Transfer Promotion Department [Kitakyushu TLOs])

The Industry-Academia Cooperation Center coordinates joint research by industry and academia, transfer of technology and study results, and provides technological consultation as well as research & development subsidies. Currently, the Collaboration Center (Building1), the Collaboration Center Building 2 (Semiconductor Center), and the Collaboration Center Building 3 (IT Advancement Center) offer services for rental laboratories and joint-use facilities.

d. SME Support Center (Management Support Department, Research & Development Department, Telework Center)

To support individuals and small-and-medium-sized enterprises (SME) who wish to start businesses or improve and innovate their management and technology, the Industrial Technology Center provides research and development support, consultation and expert dispatching services. It also operates the Intellectual Property Center and Kitakyushu Telework Center. In addition, in the Kitakyushu Technology Center Building in which this SME Support Center is located, Kitakyushu City's Business Advisory and Assistance Section is also situated, realizing the one-stop service system for small-and-medium-sized businesses.

2) Establishment of the Industry and Science Promotion Bureau of Kitakyushu City

In order to strengthen support for industries, which is an objective of the KSRP, Kitakyushu City integrated the Industry Promotion Section under the Economic Affairs Bureau and the Science Promotion Section of the Planning and Science Promotion Bureau into the Industry and Science Promotion Bureau in April 2002. Thus the newly set up Industry and Science Promotion Bureau is intended to integrally push forward with measures for promotion of industries and academic research. The Bureau consists of three departments and one office: the Industry and Science Policy Department, which takes charge of planning and coordination of industrial promotion measures, attracting businesses, and employment measures; the Industry Promotion Department, that is in charge of encouragement of cooperation between industry and academia, support for

small-and-medium-sized businesses, and promotion of shopping districts; the Logistics Management Department; and the New Airport Project Office.

(5) Kitakyushu Science Research Park in the future

1) Formation of the industrial and academic infrastructure

a. Project for Innovative and Creating Cluster (promoted by the Ministry of Education, Culture, Sports, Science and Technology)

This Project aims to form an "innovative and creating cluster" centering around major universities in the region, with a view of creating a Japan's equivalent of the Silicon Valley. In April 2002, the Kitakyushu Science and Research Park area was designated as one of the 12 regions to implement this project.

b. Industrial Cluster Plan (promoted by the Ministry of Economy, Trade and Industry)

This project aims to encourage the formation of industrial clusters (networks) that will support the local economy, continuously developing new world-class businesses, in tandem with efforts made by the regional Bureaus of Economy, Trade and Industry to serve as the nuclei for regional networks of industry, academia, and government. For example, collaborative projects for commercialization technology development are promoted with businesses playing a central role. Currently 19 projects are being implemented nationwide. The Kyushu Bureau of Economy, Trade and Industry is promoting the industrial cluster plan in the fields related to semiconductors and recycling/environmental protection.

2) Venturing into new fields of research

In addition to the environment-and information-related fields, the KSRP will further promote research in the fields of bio-and nano-technology that will become essential in the 21st century, in order that the KSRP can always be an educational and research center in the forefront of the era. In addition, the KSRP will strengthen management education (in regard to management, laws, financial affairs, marketing etc.), which is practically required but is not provided sufficiently for engineers.

3) Cooperation with countries of the Asia-Pacific region

The KSRP will not only encourage the acceptance of and exchange with students and researchers of the Asian region, particularly in the fields of environmental protection and information technology, but also make efforts to form a hub for research and development in the system LSI design-related field in Asia. Additionally, through accepting students from the Western countries and promoting joint research with these nations, it aims to act as an intermediary between the West and Asia.

Bangkok

Collaboration among Industry, Academia and Local Government:
BMA Case Study

Bangkok Metropolitan Administration, a local government, is now urged to initiate counter-measure against rapidly expansion of population and social problems in the city. The Bangkok Metropolitan Administration (BMA) has been actively trying to implement the decentralization of power and responsibilities from central government to the local administration through many directions. As one of the possible alternative, the multi-lateral collaboration industry, academia, and local government is considered as a viable and beneficial direction.

The current consensus is that industry and academia cooperation should one of the core strategies of local government. Given the existing condition of Thai industry, technological progress by means of consultation can improve Thai industry competitiveness in the local and world economy. Further, local government, should transform itself to be as competitive and result oriented as the business sector. The refinement of the government can be made through expansion of production, quality improvement of services, income and revenues creation, reduction of cost, alleviated pollution and increase of number of services provided and safety of work environment. In addition, technology improvement, services provision to public and promotion of skills and knowledge of workers are also conducted at the local government level. However, this requires consulting programs and support of academia experts and advisors for the good and efficient services in the future.

Academia, Industry and Local Government Relation and Collaboration

Vision statement for collaboration among academia, industry and local government

Collaboration among academia, industry and local government will be successfully implemented both at local and central government. We, at the BMA, believes that the following this strategy of collaboration will successfully contribute to the welling of the people as well as provide benefits in these areas:

1. Exchange

    -particularly in role exchange through think, work and share together.

2. Education

    Academia institutions will understand the needs of industrial organizations and supply with knowledge, skills to serve those needs. Besides, academia is trying to encourage industries to participate them by sending students teams to learn and understand the current atmosphere of business and economic situation. The internship and knowledge cooperation will forge strong linkage of two institutions.

3. Research

    -Academia shall provide guidance in the study analysis and research based on the needs and problems of actual situation to the local authority for develop and provide funding accurately toward the actual needs

of people. In addition, they will supply all concerned with new theory development.

-Academia could provide assistance to a local government for developing the new theory of operation through study, analysis, seminar and fieldwork. Then, conclusion of cooperative implementation will be carefully discussed and submitted for committed approval among academia, industry and local government. The BMA has launched this collaboration strategy to develop its services to the people in accordance to the Sixth BMA Development Plan which it aims at developing the city as a competitive and in effective city in the global environment.

In our paper, two fields of collaboration among academia, industry and the BMA are presented to show the close sharing and cooperation to make the our services for Bangkok residents and others in the city.

Some of the Joint Projects which designed to promote collaboration of academia, industry as well as the BMA for Technical and Service Development of BMA Information Center and the development capacity of local Small and Medium Size Enterprise (SME) are considered as good examples.

The conceptual approach of multi-lateral collaboration is taking place as each institution can increasingly assume the role of each collaborative partners. The knowledge and skills summarily can be explained in terms of changing relations, networking arrangement and socio-science based innovation process.

1. Information Center of BMA

Under the Department of Policy and Planning, the BMA has set up the information center since 1998 with the main purposes in providing database and information for the benefit of administration and reducing urban problems. Moreover, it will help to distribute any related information to public, students and various sectors as the official information and technical resource of the city.

We, at the BMA, realizes that IT revolution brings about a historic transformation of society. The BMA has been steadily engaged in the promotion of the IT innovation by formulating Information Plan as the guidelines towards the social and economic development of in Bangkok. This plan provides details for promoting the cooperation among Academia, Industry and the BMA to develop the BMA Information Center.

The BMA Information Center was established and supported by the participation of Computer manufactures, Chulalongkorn University and ABAC University under the initiative of the Bangkok Governor and BMA executives.

BMA Information Center has launched many projects which provide people a new educational opportunities including

  1. BMA's internet

  2. Electronics Library

  3. Command Center Information Service System (CCIS)

  4. CD-ROM

Process of participation among universities, computer companies and the BMA are summarized as the following

1. BMA has launched the Information Center Project in 1998. It invited the advisors and experts from Technical Center of Chulalongkorn University to make feasibility study of Information Center establishment, the procedure of establishment, equipment and models of Information Center as well as services systems and network system.

2. The BMA invited many computer companies to set up computers in the center and organized a training courses for staffs to learn about computer, as well as providing services the public.

   Besides, the project promotes collaboration from other business to provide us some equipment and other public sectors in order to participate in the Center for information exchange and Information based net working system. The public centers involved in the collaboration comprised of Ministry of interior and the Electricity Metropolitan Authority.

   Presently, BMA's Information Center has been promoting the IT advancement through many of its project such as "District Catalogue", Tourism Information Center, Geographic Information System (GIS) and E-Commerce.

   All projects aim not only to promote collaboration among all concerned sectors but also to increase value-added business to the BMA organization.

2. Bangkok One Project

Service and investment coordination center called Bangkok One, is one of the organizations created by Krugthep Thanakom Ltd., on 15 October 2000.

Krugthep Thanakom Ltd., was established with fund of the Bangkok Metropolitan Administration and manage by well-known professional managers from the public and private sectors as well as university scholars, which the Bangkok Metropolitan Administration use in the management of basic infrastructure as well as accumulate capital for the city development in order to create suitable basic infrastructure and life of the City of Bangkok.

The operation framework of Bangkok One project is in the form of the collaboration among the technical centers in the fields of work and responsibilities including Thammasat University, Suan Dusit Teaching College and Kasetsart University as well as expert, advisors and resource persons. The BMA will provide the budget and the Computer Company and others provide technical support, equipment as well as set the business system for the BMA.

With privatization from of management, the company activities are divided into 4 categories as follows;

   1. Advisory Service Activities: The activities comprised of engineering design, study and survey, financial analysis, investment advise, environment advise, organizational management, information system and management information system.

   2. Transportation Activities: The activities comprised of transportation management, van and small vehicles use in public transportation, mass transit system, trolleys, piers, public parking, crossing bridges, bridges and roads.

   3. Environment Activities: The activities comprised of waste collection and disposal, waste incinerators, sanitary landfill, management of infectious and industrial waste, water quality improvement and waste water treatment.

4. Social Activities: The activities comprised of investment promotion center for urban development, personnel and staffing, training, job creation and non-formal education.

Ongoing works are as follows;

-Collection and Disposal of Infectious waste Project is designed to handle infectious waste from public health centers and hospital in the City of Bangkok.

-Collection and Disposal of Industrial Waste Project is designed to handle non-toxic waste from industrial factories in the City of Bangkok.

-For Computer Project Under this project, the Bangkok Metropolitan Administration assigns some of its computer related activities to Krungthep Thanakom ltd., to implement. These activities including to create web site, to provide computer training and to update the information on the GIS.

3. A Local Private Market " Yingcharoen Market"

Yingcharoen Market is a local market located on the area of 40 rai of land in Bangkaen District of the B MA. Yingcharoen Market was established in 2498 B.E. by the owner of land, Mrs.Suwapee Thammawattana with the main purpose of providing fresh food to people to buy easily.

The market business has been run successfully for 47 years. In 2002 B.E. Mr.Parinya Thammawattana, the youngest son initiated to improve the market conditions with the total budget of 100 millions baht or 25 millions US dollars with the following objectives:

1. Making the market cleaner and more modern and comfortable for all customers
2. Creating the surroundings of the market more livable and unpolluted.
3. Upgrading the market toward the international standard market of Thailand.
4. Building the market as the model center of learning and studying for academia and other relevant markets both at the local and regional levels.

In accordance with the Bangkok Governor 's policy these Previously state objectives are created to mobilize private sectors to join action with public sector for providing better facilities and condition of living to the city of Bangkok.

Since then, Yingcharoen Market has been the biggest fresh food retailing market of Thailand in which various kinds of goods are brought by 1500 merchants. Yingcharoen Market is well planned and designed by experts from academic institutions and business firms.

Yingcharoen Market is divided into well planned and separated section for the customers to buy things conveniently. There are 300 vegetable stalls, 50 fresh food stalls, 100 sea food stalls, 80 pork meat stalls, and 50 fruit stalls,etc. Besides, 100 food shops are available around the market with 24-hour service.

"Fresh food, reasonable price and good service with the Thai Styles" is the symbol of Yingcharoen local market.

Yingcharoen Market, a fresh food market, received many awards including model of fresh food market recognition from Bangkok Metropolitan Administration," Ta Chang "award from the Ministry of Commerce. Currently, it has selected to participate in the " Best Buy market" program.

In addition to the various awards received, Yingcharoen Market is also the academic center for both local and regional sectors and academic institutes, such as Malaysian Market Business, Waloros Market from Chiengmai. Universities can learn and study or make a research as the best model of Small and Medium Enterprises (SME) for local residents to make more income.

Yingcharoen Market has also expanded its own business from family firm to cooperated firm managed by Company Committee chaired by Mr. Parinya Thammawattana. The main goal of market management focuses on sincerity and honesty to the customers.

Yingcharoen Market Committee are well aware of the environmental development around the market and social activities to public and community. As a result, the project of People Love the Canal in Bangken District has been introduced with the collaboration among academia, Suwapee Holding Ltd. and the BMA. Bang Khen District Office has followed the policy of the Bangkok Metropolitan Administration in reviving the Venice of East image according with People Love the Canal pilot project. It is the collaboration of the public, private and people network. Ying Chareon market is the local point of this project. Besides, fully supporting the project, it provides substantial balance of 40 million Baht to initiate in the creation of the pollution free market as well as emphasize the image of "The Fresh Market"

Presently, problem of environment deterioration along the canals in the City of Bangkok have become very serious there the Bangkok Metropolitan Administration has formulated and incorporated the environment development strategies in the Sixth Bangkok Development Plan. (2545-2549 B.E.) it aims to increase the efficiency in promoting and maintenance of good environment of the City of Bangkok as well as to revitalize the condition of the canals known in the past as Venice of East. For the Bang Khen District Office, has coordinated with the public and private sectors, Ratchasphat Phra Nakorn Institute and community in implementing this project.

The People Love Canal project has been initiated try the cooperation of many agencies Bang Khen District Office, Suwapi Holding Lid., the owner of Ying Chareon market, nine communities, Air Force, Bang Khen Police Station, Ratchaphat Phra Nakron Institute. This project is divided into phases. The first phase is cleansing both sides of the canals starting during 1-10 August 2002. The second phase of the project is concerning environmental management and occupational promotion to generate additional income.

The people living along the canals and the district office have initiated their own plan to build waste barrier with bamboo and promote the cultivation of water plant including waster mimosa in order to generation income from this joint activities.

To implement, the first phase of the operation, private companies provide equipment for cleansing the canals in nine communities and then encourage the project participants by giving auspicious plants to project participants. This project clearly reflects the cooperation of all society stakeholders especially, private sector and the public who are the core supporters of this project with the share goals of conservation and revitalization of environment.

The environmental management plan comprises of the following;

1. Academic institutions and Bangkok Metropolitan Administration jointly consider the feasibility in implementing environmental quality analysis.

2. Improving the environment market areas

3. Campaigning for merchants to dispose the waste in designated areas not the canals

4. Having staffs to cleanse the market vending area

5. Disposing the Waste

6. Spraying the disinfectant to clean the market area nightly

7. Investing and installing the fat and liquid screens in all stalls to treat the water. The private companies have already used 40 million Baht of the budget for environmental management.

4. Bangkok Metropolitan Administration Tourist Bureau Project

The Bangkok Metropolitan Administration Tourist Bureau is a case of the cooperation in term of joint promotion and funding. The Bangkok Metropolitan Administration has not only organized events by itself but also provide opportunity for educational institution in jointly organize activities with Bangkok Metropolitan Administration Tourist Bureau by sending their students to participate in internship program, conducting study on waterways tourism project as well as making a survey plan for Rattanakosin Island.

The educational institutions participate in these activities includes Thammasat University and Ratchaphat Institutions. Besides, the private companies and department stores are jointed with the Bangkok Metropolitan Administration in providing fund for printing tourism publications as well as souvenirs. Organizing activities to support tourism and international meeting for the purpose of promoting tourism in Thailand by Bangkok Metropolitan Administration as well as building tourism information kiosks are the examples of collaborative works between Bangkok Metropolitan Administration and the private enterprises with the suggestion from experts form educational institutions.

5. Sculpture from Recyclable Materials (plastic, clothes and newspaper)

This is one of the projects which the Bangkok Metropolitan Administration receives the support of its environmental campaign from private sectors, educational institutions under the recycling center project. It arises form the cooperation of the communities and theirs creative energy of constructing sculpture from the recyclable materials with the financial and material supported by Prastapana Buddhawangso, a monk, of Suwanaram Temple and cultural council. The sculptures are used to decorate rock garden, water garden, and educational park. Currently, there are three recycle centers in operation. They aim to improve the environment, reduce waste by bringing the old newspaper to be recycled, create job, to make Bangkok clean and livable city and to be a place of learning for students. The cooperation between industries, educational institution and Bangkok Metropolitan Administration is clearly demonstrated as follows:

1. Educational institutions, especially schools and theirs administrators, give the importance of cleans environment and increase income, thus initiated recycling center in the schools. The teachers and students are joined in theirs efforts to collect newspaper form department stores, shops, guardians and

public to be recycled. Training will be provided for crafting sculptures made of newspaper to the public, staffs, students that will provide knowledge and skills to make a living. Further, the school is set to be the education center on the topic of recycle in the community. The guest speakers are comprises of abbots, students as well educators who received the training.

2. Business organizations and businessmen firmly support this program by providing fund for the equipment and food for volunteers. Further, Thai Cement Co., Ltd. gives cement to be used as in the creation of the sculpture. There are also support the works to be display at Central Department Store on the occasion of World Environment Day.

3. The Bangkok Metropolitan Administration, a local authority, has a clear policy in supporting all campaign through the district offices. The Bangkok Metropolitan Administration gives its support by sending the officers to participate in the program and training, providing necessary equipment, and publicizing the information as well as training district personnel.

6. Establishing SUPPORT Foundation

The Queen has come to the conclusion that most Thai people are dexterous, industrious and meticulous. Each region, moreover, has its own indigenous raw materials and cottage industry. If these indigenous handicrafts can be promoted and their utility emphasized, the rural poor will have additional occupations and incomes. With this in mind, wherever she travels, the Queen pays special attention to indigenous cottage industries and crafts, and gives appropriate support to all kinds of regional projects.

Foundation for the Promotion of Supplementary Occupations and Related Techniques, or SUPPORT. SUPPORT was founded in 1976 under Her Majesty's royal patronage and chairmanship. The promotion work of the foundation has been recognized as highly effective, particularly since SUPPORT provides outlets for local wares and handicrafts from all regions of the kingdom 1979, the SUPPORT Foundation's Chitralada Training Center was set up to train children of landless villagers in Thai arts and crafts. Through this project, Her Majesty succeeds in preserving some dying arts.

There are also other centers that have been set up by Her Majesty's command such as the "Band Sai Center" in a beautifully landscaped compound by the Chao Phraya River in Ayutthaya Local Authority.

Bangsai Arts and Crafts Center: A Royal Project by Her Majesty the Queen

His Excellency, Tanin Kraivixian, former prime minister, Privy Councillor and deputy president of the board of directors of the SUPPORT Foundation for the Promotion of Supplementary Occupations and Techniques.

The Arts and Crafts Center's main objective is to encourage female farmers to follow a secondary occupation, artistic skills, to earn extra income during difficult times. After graduating, they are encouraged to return to their farming areas, to till the land following the project concept to remain self-sufficient. Farmers will have a supplementary occupation from which to make a living, without having to sell off their land.

We are seeking expert assistance directly from the Export Department, Ministry of Commerce. Lack of

funding has prevented the project from starting but once was Her Majesty's intention that each Arts and Crafts Center with the SUPPORT Foundation should be a training center for folk arts and crafts for impoverished farmers. In other words, SUPPORT centers will serve solely as schools, not factories, for producing handicrafts, to provide training for farmers to help them establish their won cottage industries to sell their products. If they can sell their products, however, the Arts and crafts Center will help with marketing.

"The SUPPORT Export Center, with cooperation from the Bangsai Arts and Crafts Center, the Department of Export Promotion and support from The Tourism Authority of Thailand, will focus its efforts on folk art and craft products" help farmers nationwide, to sell the handicrafts they produce because there will be domestic and international markets to absorb them. Research and development center to tack international market trends would also be essential develop our own production techniques and identify those products that could specifically represent Thailand's artistic and cultural works"

The Bangsai Arts and Crafts Center has sent over ten thousand students graduate with elementary and tertiary certificates. Some of the graduates display superb qualities. Some who graduated in glassblowing may leave their products to be sold at the Center if they are of the highest quality, because, in Her Majesty's opinion only the best will do.

In addition to providing the farmers with artistic skills, the Center is entrusted with two more roles for interest towards further development.

The first role concerns the conservation of nature and our environment. The second role supports the propagation and promotion of the unique aspects of Thai art culture to the world community for greater appreciation.

The Center offers villages and poor people the opportunity to earn a supplementary income, enhancing artistic skills while conserving our national artistic heritage for future generations.

Conclusion:

The BMA and other cities have tried to transfer its role from public agency to public-private collaborative agency assuring the role of other and the role of knowledge in society.

The conceptual framework of our collaboration and local authorities among the Academic, Industry the local governments are concluded as the followings.

   1. Concepts changes

      The Local Government has been trying to improve its services and management as a provider to supporter, coordinator and a partner.

      The expanding of network system among sectors, related particularly academia, Industry and a local government, is now introduced to be granted as the most important mean for development in mega-cities like Tokyo and Jakarta.

      The concept of Administration change do the roles "Taking the Role of the Other" is the main view points for relevant sectors to take more action.

2. Good relations among Academia, Industry and The BMA

   Intersectoral relationships among the Academia, industry and the BMA have increased Knowledge intensity of the economic development.

3. Innovation has brought the technostructure of knowledge based corporation. Such Innovation, for example, in the Project of People Love the Canals, Ying Charoen Market, Bangkhaen District can represent the requirement of working together through interactive practice. The network arrangements come from variety of institutions and organizations, which may crosscut institutional and local authority boundaries.

4. The model of management for the collaborative projects changes. The roles of each sector are no longer fixed. The different functions are needed in order to generate and sustain the cooperative process and activities.

   The private sectors or economists have assumed their own roles not only as supplier of funds or human capital, but also as another industrial actor creating intellectual property and co-shopping new firms and the BMA as a local government enter the seen as entrepreneur directly and indirectly, not only supplying the resources to other sectors or regulation control but also on investor of organizational innovations and structural adjustment as well as both a participant and an observer.

   However, the achieved projects are considered as the result from Collaboration among BMA and other sectors that have the same aims. The benefit gained by this sector is not the exported absolute outcome but the good services rendered to Bangkok Citizens, improved economic and Stakeholders participation which lead to the revelation of management for sustainable, Efficient, and clean collaboration.