



# NEWSLETTER

Vol. 07 Issue 02 SHANGHAI TECHNICAL TRANSFER EXCHANGE Jun. 2004

## Quotations of Tech-Transaction in Shanghai

From Jan. to Jun., 2004

Total No. of Contract: 13652

Total Vol.: RMB 7.19 billion

## Focusing on Urban Development & Industries Upgrading

# Tech-Brokers Activate City's Tech-Transaction

Reporter: Minhua Wang

*(Translated from Jiefang Daily, June 20, 2004, Page 1)*

Recently, Consolidated Engineering Company (CEC), a US company, came to Shanghai and wanted to ask Shanghai Technical Transfer Exchange (STTE) for promoting its technology of aluminum automobile engine. Before visiting STTE, somebody told CEC that two foreign companies brought their engine technologies to STTE one year ago, but they were refused politely as it was considered too system demanding to be carried out in automobile industry of China. To CEC's surprise, STTE readily accepted the project this time. So far STTE has contacted several potential Chinese partners, and a promotion meeting for this project will be held soon.

Let us look into why this change happened and why such a big project could be "digested"? The answer probably is that technology brokers are growing fast in Shanghai. They have become an industry planner and innovation developer from a single product promoter.

Focusing on urban development and economic needs, STTE, this year, is making efforts in introduction of energy-saving technologies, such as the long-life LED lamp from Japan and the compressed-air-driving car from France. It is a good news for industry circles that technology brokers in Shanghai has grown out of a tech-middleman into a tech-adviser who are able to serve their clients well by providing reliable analysis of technology and market as well as feasibility report. For instance, the newly emerging aluminum engine, compared with the common iron one, which is less weight, more energy-saving and more cleaning, has aroused a wide interest among domestic auto-industry under the promotion work of STTE.

### Cover Story

Technology brokers activate city's tech-transaction

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To be an all-around broker, you should have foresight and new idea. Facing the readjustment of industrial structure in Shanghai, STTE endeavors to transfer some mature and market-saturating technologies to other countries and made these value-lowing technologies and equipment revive. For example, 21 non-woven production lines are being offered to India and other developing countries under the help of Asian and Pacific Center for Transfer of Technology (APCTT), and the instant noodle production line is being tried to import to Eastern Europe.

It is reported that, in first 5 months of this year, about 12 thousand deals of tech-transactions with a volume of RMB 5.8 billion yuan were accomplished in Shanghai, which accounted for 10% of whole domestic figure.

From the beginning of this year, STTE has brought out several new services. Such as the Post-Exhibition Technology Promotion Services, that is, STTE will be in charge of the promotion of foreign exhibitors' technologies/products in China as per their requests after exhibitions so that they can feel easy to back home. Next month, STTE will cooperate with Shanghai University to offer a tech-broker training program. Part of students will be from many large state-own-enterprises in Shanghai. From this training program, the technology brokers will be more skilled and more familiar with tendencies of technology and market, and STTE will know the needs of industries and enterprises much better.

# What's Up

## Korean reporter interviewed STTE

Mr. Wootak Lee, reporter of Korean Yonhap News Agency, had an interview with Mr. Haisheng Wang, President of STTE, on April 2.

Mr. Lee was very interested in the efforts of STTE to promote the cooperation between Chinese and Korean enterprises. He said he would make more Korean companies know that STTE could well help them to enter China market.



Mr. Lee came to STTE accompanied by representatives of DeRyook International Law Firm, a new strategy partner of STTE.

## Indian hand tools delegation visited China

An Indian hand-tools manufacturers delegation led by Mr. H.P. Kumar, Finance Director of National Small Industries Corporation and Mr. Arun Kumar Jha, officer of Ministry of Small Scale Industry of India, paid a visit to China from April 11 to 18. There were 6 CEOs of Indian hand-tools companies in the delegation. The purpose of their visit was to investigate the hand-tools market and seek the opportunity to cooperate with Chinese counterparts.

Under the arrangement of STTE, the delegation visited Yiwu and Yongkang Counties in Zhejiang Province, where is the famous region of hand-tools manufacture and trade in China. With the help of local governments, They visited dozens of hardware companies and held several meetings with the local business society.

After back from Zhejiang, the delegation visited STTE on April 17. Mr. Haisheng Wang, President of STTE, welcomed the delegation and introduced STTE and current situation of technology innovation and trade in Shanghai to them. Both parties discussed the feasibility of further collaboration and expected a good prospect in the future. Meanwhile the Indian guests gave a high praise to STTE for its arrangement and organization works for the delegation.

Accompanied by the employees of STTE, the delegation also visited Shanghai Foreign Investment Commission on April 18 in order to know the relative policies and rules of foreign investment in Shanghai.



## Met Spanish delegation in Shanghai

On April 20, 2004, Mr. Shangjie Ye, CIO of STTE and Mr. Hai Peng, Director of International Tech-Transfer Dept. of STTE met a Madrid region technology delegation in Shanghai. Mr. Francisco Novela of the Confederation of Private Companies of Madrid and Mr. Alfonso Carcasona, Mr. Jose Isardo and Mr. Javier Mendez of the Madrid Chamber of Commerce composed this high-level delegation.

Mr. Jose Pellon and Ms. Danni Cheng of the Consulate General of Spain and Mr. Chenhao Li of the Science & Technology Commission of Shanghai Municipality were also present at the meeting.

Mr. Ye introduced the current situation of technology innovation, incubation and investment in Shanghai to the Spanish guests. They were very interested in the introduction and asked many questions about it. They thought some functions of their organizations similar to that of STTE and hoped to establish long-term cooperative relationship with STTE for serving hi-tech enterprises of both countries better.



## APCTT new director visited STTE

On April 28, Mr. Se-Jun Yoon, the new appointed director of Asian and Pacific Center for Transfer of Technology (APCTT) paid his first visit to STTE accompanied with Ms. Ja-Kyung Yoo, the official of Economic and Social Commission for Asia and The Pacific (ESCAP). They were participating the 60th ESCAP Conference in Shanghai.

Mr. Haisheng Wang, President of STTE, met them and reported the current works of STTE to them. Mr. Yoon and Ms. Yoo appreciated the long-term cooperation between APCTT and STTE, and expressed their hope for strengthening further cooperation. Also, both sides discussed other subjects such as development of Technology-4sem.com, technology transaction among regions, establishment of Sino-India tech-transfer base and so on.



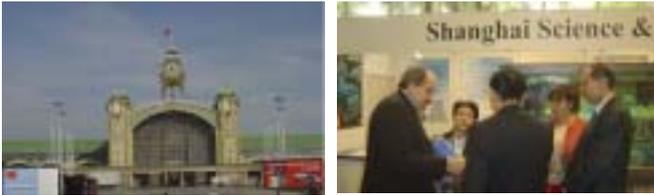
## A fruitful exhibition in Czech

The China New Technologies and Products Exhibition was held at Prague, Capital of Czech Republic from May 18 to 21. Shanghai delegation together with delegations from Beijing, Zhejiang, Hubei, Sichuan and Shandong attended the exhibition that was organized by Ministry of Science and Technology of China.

STTE as a member of Shanghai delegation brought many technologies and hi-tech products, such as auto impact wrench, garlic extract, novel ad light box, rare-earth generator and high efficiency dehumidifier, to Prague, which attracted attention of many visitors including Mr. Philip, Vice President of Czech Parliament, Mr. Guoqiang Tang, Chinese ambassador to Czech Republic, representatives of enterprises, research institutes and trade agencies, and a lot of overseas Chinese.

Secretary General of Association of Innovative Entrepreneurship of Czech Republic, Dr. Pavel Svejda, came to STTE's booth and met with representatives of STTE. Both sides showed great interest in establishment of strategy partnership. Moreover, 2 new overseas representatives of STTE were recruited during the exhibition.

After the exhibition, Shanghai delegation had a business tour in several European countries including Germany, Austria, Italy and France.



### GISsoft visited for implementing agreement

On May 17, Mr. Donghoe Jung, the CEO of GISsoft Co., a Korean hi-tech company, visited STTE in order to discuss the progress of the cooperation according to the agreement signed on April 30.

Mr. Shangjie Ye, the CIO of STTE, met with them and discussed the detailed work regarding the business. GISsoft Co. has turned their core GIS technology into practical solutions. Now they are eager to transfer their technology to Chinese market and trust STTE to seek potential Chinese partners for them.

Since signing the agreement, STTE has already grouped a project team and launched the project. It was helpful to facilitate the project that many details were discussed during the meeting.

### STTE attended the exhibition in Japan



The 14<sup>th</sup> Hotel Restaurant & Bakery Show was held from May 18 to 21, 2004 in Fukuoka of Japan. Invited by the organizer of the show, the Nijjan Kogyo Shimbun Ltd., a famous business and technology newspaper in Japan, STTE organized 8 Chinese companies to take part in the show.

The Chinese delegation was paid much attention by the organizer of the show since it was the first time to participate in this show. Together with the delegations from Canada and Thailand, STTE as one of representatives of foreign delegations was invited to cut the ribbon on the opening ceremony together.

During the show, many visitors came to booths of the China delegation. They made a full understanding of the exhibits from China delegation and the detail matters of cooperation. Chinese exhibitors also showed great interests and cooperation wishes to these visitors.

By attending the show, Chinese exhibitors not only demonstrated their products to explore the international markets, but also learnt a lot from their foreign counterparts. Their advanced technologies, designs and managements left

a deep impression to the members of the China delegation.

### STTE cooperated with a Korean TLO

A 4-member Korean delegation led by Dr. Soo Hyun Eom, the head of Gwangju Institute of Science and Technology, visited STTE on May 25.

Mr. Shangjie Ye, CIO of STTE, met the guests and made a presentation about STTE, and Dr. Eom introduced Honan & Jeju Technology Licensing Office, which makes its efforts to promote the technology transfer in Korea. Both parties enjoyed talking on topics of information technology exchange, SIF2004, videoconference system and so on.

At the end of the meeting, a MOU was signed for further cooperation.

### NEC Shanghai Office as a new member of STTE

The NEC Shanghai Office signed a membership agreement and became the 190<sup>th</sup> member of STTE on May 31, 2004.

In recent years, NEC, the famous Japanese company, paid much more attention to its intellectual properties including patents, technologies, know-hows and so on. In 2004, NEC set up a special department for its intellectual property business to regulate its patented technologies and to meet needs of its internal system. At the same time, a website called "NEC intellectual Assets" was launched to provide information about its patents, technologies and services.

The collaboration between STTE and NEC will make full use of the advantages of both sides to promote the licensing and transfer of NEC's technologies and to facilitate the technology innovation of correlative industrials in China.

### Iranian Friends Visited STTE

Mr. Kh.Dehghan, Engineering Manager of Azar Refractories Co., and Mr. H. Alian of ProTec GmbH, an Iranian company in Germany, paid a visit to STTE in seeking tech-



nologies of liquid and solid resin on June 8.

Staffs of STTE introduced the basic situation of China resin industry to Iranian guest, which aroused the interest of them.

After a one-month searching, STTE found a suitable resin factory in Wuxi, Jiangsu Province, who is quite willing to go further about transfer of its resin technology. The negotiation is in progress now.

Mr. Dehghan is an old friend of STTE. He has visited Shanghai many times.

### Met APCTT officer in Nanjing

Mr. Shangjie Ye, CIO of STTE, with 2 STTE staffs, went to Nanjing, Capital of Jiang-shu Province, and met Mr. Rajeev Vijh, In-Charge of Tech-Exchange Service of APCTT, there in the afternoon of June 10. Mr. Vijh, an old friend of STTE, was attending a tech-fair in Nanjing.



Mr. Ye exchange ideas on the cooperative matters between APCTT and STTE with Mr. Vijn and introduced some Chinese industrial equipment and technologies, such as non-woven production line, to him, and Mr. Vijn would like to help explore Indian market. They also discussed on the further collaboration of the website, technology4sme. The meeting was short but fruitful.

### Experts from the University of Texas at Austin

On Jun 21, Mr. Hans Rijckenberg, Dr. Eliza R. Evans and experts of the Innovation, Creativity and Capital Institute at The University of Texas at Austin paid a visit



to STTE after attending a technomart in Fujian Province. Mr. Haisheng Wang, President of STTE, welcomed the guests and presented the basic situation of STTE which raised the interests of two experts.

Mr. Rijckenberg is also the managing director of a tech-transfer company in The Netherlands. He appreciated the business models and successes of STTE and expressed his wish to cooperate with STTE.

### MBA students of DePaul University visited STTE



A group of MBA students led by Prof. Owais Succari, associate director of Management Development Center, DePaul University, visited STTE as part of its China Business Seminar, accompanied by Ms. Jennet Qian, CEO of Global Business Partners (GBP, a cooperation partner of STTE in Chicago, US) on June 25, 2004.

Mr. Haisheng Wang, President of STTE, met the group and made a presentation on the main functions of STTE under the topic of "A unique platform bringing together scientists, investors and manufactures nationally and internationally". The presentation raised the interests of those MBA students, who asked some related questions and got good answers from Mr. Wang. Dr. Succari expressed their thankfulness and introduced some models of tech-transaction in US.

Before visiting STTE, the group visited several other influential institutions in Beijing and Shanghai, such as University of International Business & Economics, Motorola China and Trade Office of the State of Illinois in Shanghai.



### Videoconferences of TEE Forum

TEE Forum, China-Finland Technology Trade Education Expert Forum, is a project that bridges small and medium sized enterprises (SMEs) between China and Finland to promote their cooperation. STTE and Finland Salpaus International Studies (Salpaus), partners of TEE Forum, have held video meeting many times as part of the forum so far.

On May 5, a seminar on cooperation and opportunities in China was held in Lahti of Finland. It was one of the series activities of the forum. There are over one hundred persons attending the seminar, including former Ambassador to China, the officers of Finland Ministry of Trade & Industry, the representatives of China Embassy to Finland, local enterprises, experts and students. Mr. Haisheng Wang, President of STTE, at the meeting room of STTE, made a speech with the topic as Opportunities of Tech-Trade in Shanghai Area to participants in Finland by videoconference system. His speech acquired a good showing effect because the slides of his speech could be transmitted to Lahti simultaneously. Mr. Wang also answered the questions asked by Finish side face to face.

In order to scheme the work of SIF2004, STTE and Salpaus held another video meeting on June 29. STTE side introduced the new features of the Technology Transfer Pavilion in SIF2004 (TTP). And both sides discussed how to organize Finish companies to attend TTP in this November. They also exchanged their opinions about the cooperation on the TEE Forum portal. Thanks this advanced means, the one-hour-meeting was very efficient. Both parties agreed to hold another working meeting in the middle of August and a TTP promotion meeting after that.

### SU & STTE jointly training technology brokers



Shanghai University (SU) and STTE signed an agreement on training technology Brokers on July 28, 2004. It initiated a new education model by collaborating between university and technical intermediary organization, and was an attempt to break the bottleneck of technology Industrialization in China.

In the training program, Shanghai University is in charge of the theoretical training based on its academy and education advantage, and STTE is in charge of case study and practice coach based on its more than 10 years' experiences and plentiful project resources. With the organic combination of theoretical and practice training, the trainees who have passed the training courses can be the Signed Technology Brokers of STTE (STB) to make full use of what they have learned during the courses.

Reporters from several Shanghai-based medias were present at the signing ceremony with great concern about this innovative cooperation.

# S&T NEWS

## First domestic produced 64-bit PC to debut

China's first 64-bit PC, cooperatively produced by Tsinghua Unisplendour Corporation and Advanced Micro Devices (AMD), appeared on the market on April 2. The desktop PC, which belongs to Tsinghua Unisplendour's X series, comes in two configurations and prices. The cooperative relationship between Tsinghua Unisplendour and AMD began last November. Now, three of their four product lines have been used to produce the 64-bit PC, with the last one to make 32-bit AMD processors. (2004-04-02)

## Cloned cow gives birth in Shandong

Cloned cow "Fu Fu" gave birth to a male calf on April 14 in east China's Shandong province. All the physiological of the calf, "Xing Xing", indices, including heartbeat rate, temperature and breath, were all normal, according to Wei Qiang, head of the technician team. The first 12 somatic cell-cloned calves, independently bred by China, were born there in January 2002. Fu Fu, one of the five survivals, was artificially fertilized and became pregnant last June. And the other four cloned cows have also become pregnant and are expected to give birth in the near future. (2004-04-15)

## Nanotech Research center

A state nano-technology research and engineering center, the country's only one of its kind, will be established in Shanghai by the end of its kind. The city officials announced over the weekend. According to a preliminary plan, the center will be located at the Zizhu High-tech Park in Minhang District. The central government, the city and 12 major companies will invest 192 million yuan (US\$23 million) in the project. (2004-04-19)

## China develops first nano-satellite

China successfully sent into space Nano-satellite I, which was with a weight of 25 kg and developed by the elite Qinghua University and Aerospace Qinghua Satellite Technologies Co. Ltd., the first nanotechnology-based satellite ever developed by the country independently, on April 19. The successful launch has made China the fourth country in the world that is capable of launching nano-satellites after Russia, the United States and Britain. While heralding micro satellites as a revolution in aerospace, Chinese experts said China had treated the development of super small satellites as an important way to serve economic growth and benefit mankind by using space technologies. Before the latest launch, China had successfully sent into orbit small satellites for the purposes of scientific experiments, resource survey, disaster forecast and environment prospecting and monitoring. (2004-04-20)

## Boat could clean water

Seven graduate students from Shanghai Jiaotong University invented a mechanized boat which could reduce hyacinth, a

floating aquatic plant that poisons water-ways by reducing oxygen levels. Yet to turn their idea into a saleable product may prove more difficult than the invention itself. Although they entrusted a patent agency with marketing, they haven't found any investors. With specially installed high-pressure squirt guns, and biological filtering equipment, the boat is able to cut, swallow and pack the water plant in an assembly-like manner. According to inventors, the model cost about 25,000 yuan (US \$ 3,012) while they estimate a real boat would be about 500,000 yuan. Still, that's only one sixth the price of boats imported from America that are used to clean local waterways. The public sanitation department said it appreciated the "brilliant" effort of students, but that the boat would need to pass many tests before the machine could be put into practical use. (2004-05-08)

## China's Shenzhou VI to be launched in fall 2005

China will launch its second manned space mission, the "Shenzhou VI", next fall on a flight to be piloted by two astronauts. The two astronauts will also leave the space capsule and descend into the orbital module where they will conduct experiments, revealed Qi Faren, the chief designer of Shenzhou. China became the third nation to succeed in manned space flight when it launched the Shenzhou V (or Divine Vessel V) last October, carrying sole astronaut Yang Liwei around the earth 14 times. Plans for a Shenzhou VII flight are already in the works for sometime before 2010 and include China's first-ever space walk. (2004-05-13)

## Breakthrough in bird flu virus test technology

A multiple real-time fluorescent test reagent kit was successfully developed for testing H5, H7 and H9 subgroups of the bird flu virus in Shenzhen, south China's Guangdong province, according to the appraisal team for the new test approach. Dubbed RT-PCR, the reagent kit is able to test three subgroups of avian influenza viruses simultaneously, instead of only one subgroup at a time in the past, said Tian Bo, academician with the Chinese Academy of Sciences and head of the appraisal team. This is believed to be the first time in the world that a reagent kit was developed to test more than one subgroup of the bird flu virus simultaneously. To lower the test cost and raise test efficiency, researchers from the bureau have worked with their fellows from the Shenzhen Taitai Gene Co., Ltd. for three months to develop a new-type fluorescent RT-PCP reagent kit. The scientific outcome, with independent patent, has met the world standards. (2004-05-17)

## China completes designs for lunar orbiting project

Scientists in Beijing say China has completed the design of instruments and procedures for its lunar orbiting project, the first phase of its moon probing project. A leading Chinese scientist revealed in Shanghai that besides moon probes, China is likely to set up a seismograph on the moon. He also suggested establishing a small astronomical observatory on the moon. At present, there are no astronomical instruments on the moon. (2004-05-19)

**New tech helps deliver multimedia news**

People in the future will enjoy multimedia news service thanks to the development of a technical language designed for computers, NewsML. About 150 world experts in the field of news delivery technology gathered in Hong Kong on May 24 to attend the Second Chinese NewsML International Symposium jointly. The technology will enable news delivery from news providers to websites, mobile phones, computer, interactive TV and 3G mobile communication systems more efficient. Kam-Fai Wong, chairman of the Chinese NewsML Community of the Chinese University of Hong Kong, said that more than one quarter of the world population use Chinese. The development of Chinese NewsML standard will help Chinese speakers get news information faster and more convenient. Experts from AFP, Kyodo News, Xinhua News Agency, Qinghua University, and several Taiwan universities will exchange their views on the research and application of Chinese NewsML during the two-day meeting. (2004-05-25)

**China welcomes more world advanced transport technologies**

China welcomes more world advanced transport technologies to be used in its mass transportation construction in the next two decades, which will be the largest-scale even in the world, a senior Chinese transport expert said on May 27. According to Feng, Chief Engineer of the Ministry of Communications, China is now planning the construction of an 85,000-km-long national expressway network and a 100,000-km-long national railway network, aiming to improve its transport capacity to completely meet the demand of its economic and social development by the year 2020. Feng said the next 20 years will witness the fastest period of infrastructure development in China, including road, waterway and railway construction. During that period, China will further increase exchanges and cooperation with the world's top transport technology institutes and agencies, so as to apply more advanced technologies into China's transport sector and upgrade the industry's scientific level, China began the cooperation with some foreign transport institutes or agencies back in the 1980s, and the cooperation was expanded fast in the 1990s. With more and more foreign techniques adopted in China's transport projects, the country's transport design and construction capability has been greatly improved. This is the first time China has hosted the international conference, which had drawn more than 100 transport experts from 27 countries including the United

States, Germany, Canada and Japan, as well as over 500 Chinese transport experts. The conference was initiated by the American Society of Civil Engineers (ASCE) and hosted by the China Academy of Transportation Sciences. The participants discussed during the conference some hot topics on transport technologies, like intelligent transport system, highway protection, bridge design, transport security and environmental protection. (2004-05-28)

**World's largest lithium base to be established**

China plans to establish the world's largest lithium production base in west China's Qinghai province. The construction project is expected to be completed by the end of 2004. The construction project is currently under way and is expected to be completed by the end of 2004. The facility will produce 800 tons lithium by the end of this year, which will increase to 40,000 tons per year in the future. A leading project official says upon completion, Qinghai will be the largest lithium production base in the world. Qinghai has rich lithium resources, which represent 96 percent of China's total and 64 percent of the world's. (2004-06-18)

**Chinese medicine to reduce coronary disease threat**

China's national cardiovascular diseases control and treatment office has announced that a new, special Chinese herbal medicine could cut the general toll rate of coronary heart disease by about 33 percent. According to statistics, the Chinese medicine, popularly known as "Xuezhikang", could readjust human blood-fat levels and long-term use could lower the occurrence rate of the disease by over 45 percent and the recurrence rate of non-fatal myocardial infarctions by some 60 percent. The effect was determined on the basis of a four-year survey carried out amongst 4,870 coronary disease sufferers. (2004-06-21)

**Table: The Application Share of GIS Software in China**

	Name	Number	Market Share (%)	Total Number	Total Market Share (%)
Foreign	ARC/INFO	188	22.76		
	ARCVIEW	74	8.96		
	MAPOBJECT	8	0.97		
	MAPINFO	167	20.22		
	AUTOCAD/MAP	35	4.24	583	70.58
	AUTOCAD/MAP	16	1.94		
	AUTODESK	3	0.36		
	MGE	27	3.27		
	GEOMEDIA	28	3.39		
	GENAMAP	11	1.33		
	MICROSTATION	11	1.33		
	SICAD	4	0.48		
	MAPTITUDE	3	0.36		
	Others	8	0.97		
Chinese	Self-developing Software	42	5.08		
	MAPGIS	55	6.66		
	GEOWINDOWS	7	0.85		
	GEOSTAR(GEOSCAN)	105	12.71		
	CITYSTAR	12	1.45		
	MAPENGINE	5	0.61	243	29.42
	VIEWGIS	7	0.85		
	SUPERMAP	3	0.36		
Others	7	0.85			
Total		826	100	826	100

Data from: *Development of GIS Technology of China (Engineering of Surveying and Mapping, Vol. 11, No. 2, 2002)*

**Industry Watch** is designed to provide readers with information, analysis and perspectives about selected industries in China. Due to limited page space, articles have to be cut down in some way. Nevertheless, you are always welcome to reach us for the full articles (all of which are STTE's work of its own) or relevant research services.

# The Prospect of Geographic Information System in China

## Introduction of GIS

GIS is the abbreviation of Geographic Information System. Many definitions of GIS have been suggested over the years, such as "a container of maps in digital form", "a computerized tool for solving geographic problems", "a tool for performing operations on geographic data that are too tedious or expensive or inaccurate if performed by hand"

In general, we could derive the practical definition of GIS as a computerized system designed to dealing with the collection, storage, manipulation, analysis, visualization and displaying geographic information. GIS is a tool to perform the spatial analysis which will put insight to the activities and phenomena carrying out everyday.

## Major Components of GIS system

The major components of GIS are hardware, software, data, people, procedure and network.

- Hardware is the devices that the user interacts directly in carrying out GIS operations, such as the computer, digitizer, plotter, etc.
- Software, normally runs locally in the user's machine, also supports user to carry out multiple spatial analysis and management.
- Data, which is quite critical to GIS, contains either an explicit geographic reference, such as latitude and longitude coordinate, or an implicit reference such as an address, postal code, census tract name, forest stand identifier, or road name.
- People are most active components dealing with the design, programming, operation and management of GIS.
- Procedure, more related to the management aspect of GIS, is referred to lines of reporting, control points, and other mechanism for ensuring the high quality of GIS.
- Network allows rapid communication and sharing digital information. The Internet has proven very popular as a vehicle for delivering GIS applications.

## Most common practical applications

- Analyze how man affects the environment.
- Mapping out environmental layers to characterize a site and predict site potential.
- Routing of roads, transmission lines, pipelines, sewer, and network analysis & flow analysis through these routes.
- Mapping and managing urban infrastructure including base maps, curbs, water supply, drainage, electricity, telephone, and gas.
- Spatially examining socio and economic indicators of the population and their use in planning and growth management.

## Market Status in China

The main requests of the application regarding GIS in China are from the government, financial industry and telecom industry. They account for 60 percent of total market demand. Other commercial application by enterprises and individual is less than 40 percent.

The popular foreign GIS software in China include ArcGIS, MapInfo, Geomedia, AutoCAD Map, SmallWorld, SICAD, MGE, and Microstation Geographics. Others are developed by Chinese corporations or institutes, which are MapGIS, GeoStar, SuperMap, MapEngine, etc.

Foreign software held mostly share in the field of GIS, approximately 70%. Other Chinese software only hold 30% share of the market. The detail statistic data are shown in the table, The application share of GIS software in China (on page 6).

Thus, government plans to speed up the development of GIS in China, meanwhile, some Chinese software are playing more and more important role in domestic market, such as Infomap, Citystar, Geostar, Mapgis, Supermap, etc. The application requests in the fields of GPS, GIS and LBS grow very quickly. It is forecasted that the total market share regarding product services and operation services will reach 20 billion RMB. A good opportunity in this industry can be foreseen.

# Technology Transfer Pavilion in SIF2004

Shanghai New International Expo Center, Shanghai, China

November 4-9, 2004

**Shanghai International Industry Fair (SIF2004)** is the biggest international industry fair in China with high tech equipment as the principal for transactions and exhibition, which is going to be held Shanghai New International Expo Center, Pudong, Shanghai in November 4-9, 2004.

**Technology Transfer Pavilion (TTP)** is located in Hall 5 of the expo center, which has been hosted by **Shanghai Technical Transfer Exchange (STTE)** since the first SIF in 1999.

As an essential part of SIF, TTP is also a platform for the industrializations of S&T achievements with focus on the integration of production, R&D and technology transfer. The theme of TTP2004 is **Information Era & Tech-transfer**. It shall provide opportunities for technology transfer organizations, research institutes, enterprises and related entities all over the world to demonstrate their technologies and hi-tech products, to develop relations with Chinese customers and clients, as well as to acquaint themselves with the largest market in the world and its people.

## Features of TTP2004 :

- Top 10 technology transfer institutions in China will present at TTP;
- Video Conference between countries will be held for Tech-transfer during the fair;
- 10000 projects of tech-offers or tech-requesters will be exhibited in TTP;
- Newly founded Shanghai International Technology Transfer Union (STTU) will make a stage pose;
- Free booth at 2004 Yangtze Delta Technomart (in Shanghai, Nov. 2-3) will be provide to exhibitors of TTP;
- Service to promote your technologies/products after SIF will be provided;
- If you'd like to visit the fair only or visit local companies before/after SIF, the services will be available;
- In addition to have a booth, your are also able to show your promising projects in the Pavilion only.

## Exhibition Rates:

Standard Booth (3mx3m): **USD 1,500/booth (Official Price is USD 2,000/booth)**

One booth package includes: One business talk table, Four folding chairs, One fascia board, One 220v 10A power supply socket, Two spotlights, and inside-booth carpet.

**Notice:** The Official Registration Deadline is **August 31, 2004**

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# STTE

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