

China Gaining Momentum in Nanotech R& D and Business

A glimpse of ChinaNANOMAT2002 held in Beijing on Nov. 3-5th 2002

The 1st Nanotech trade show in China, ChinaNANOMAT2002 was held on Nov. 3-5th 2002 at the Beijing International Convention Center. The event was officially supported by the Chinese Materials Research Society, and the Ministry of Science and Technology. The main organizers were EAA Exhibition Consulting Co and its oversea partner nABACUS Ltd, a nanotech consulting company in Asia.

ChinaNANOMAT2002 attracted several thousand visitors coming from all over China, Hong Kong, Singapore, Taiwan, Korea, USA and EU. Visitors were interested in learning about the status of nanotech development in China, searching for R & D and business partners, and identifying technologies that can add high-tech value to their current products. Visitors were mainly from government bodies, academia, and various industries including coating, paint, textile, construction, steel, electronics, precision machinery, food, automobile, batteries, plastics, petroleum, medicine, aerospace, investment and etc. Over 10 members of Si-cuan government, academia and industry delegation (The population of the Si-cuan province is over 100million) participated in ChinaNANOMAT2002 with the mission of deciding on the Si-cuan Nanotech government strategy by investigating the state of development in other part of China, particularly Beijing.

There are over 50 R & D organizations and companies exhibiting at ChinaNANOMAT2002 and 10% of which are from overseas including the Japan National Institute of Materials Sciences (NIMS), Nanotechnology Researchers Network Center of Japan (NRNCJ) and Japan National Institute of Advanced Industrial Science and Technology (AIST). Other organizations including Mitsubishi Corp, National University of Singapore, Wiley & Sons, and Innovation Engine Japan were represented by the Asia Pacific Nanotech Forum (APNF).

Ever since the Clinton National Nanotechnology Initiative was announced, there has been strong nano heat in China and it has been spreading over almost every province in China. The Ministry of Science and Technology (MOST) conducted survey in 2001 on the status of Nanotech R & D and Industry Development in China. The following year the ministry assigned the Nano Science and Technology Expert Committee to do a domestic and international survey on several technical areas including nanoelectronics, nanomaterials and Nanobiotech. The local governments also conducted survey on the nanotech R & D and business statement of development in their regions.

Nanotechnology R & D in China covers the usual interdisciplinary areas such as molecular electronics, nano-biology and nanomaterials. The venture business is practically just nanomaterials business. There are a few domestic nanotech tool makers producing Scanning Probe Microscopes (SPM), but foreign companies dominate the Chinese nanotech R & D market.

According to nABACUS Partners latest survey on the Chinese Nanotech companies, there are over 700 companies registered as nanotech companies, among them seventeen

are listed on the stock exchange in China and Hong Kong. Over 50 manufacturing companies listed on the Chinese Stock Exchange have invested in nanotech venture business in China. The sources of Chinese venture business include central and local governments funds, domestic angel investment, oversea Chinese angel investment, the Greater China (the Mainland, Taiwan and Hong Kong) venture capital and manufacturer investments. Venture companies can participate in the government research programs such as the 973 and 863 programs that have allocated substantial funding in nanotechnology especially the past year (Please read the last issue of APNW for details of funding). The venture companies can be also supported by the SME Innovation Investment Fund (typically 1 million RMB per project) from the Ministry of Science and Technology (MOST).

Venture companies such as Shenzhen Chengying Technology Co., Ltd (one of the exhibitors) are aggressive in pursuing international partnerships and market. Chengying is a 3 years old company spun off from Shanghai University, invested by Chinese angel investment with a total initial investment of 10m RMB (USD1.2m). The company has set up production bases both in Shanghai & Shenzhen and is actively searching for oversea business partners to market their products and further developing the technology. Their products include Nano TiO₂ for cosmetic sunscreen products, UV-block paint, photo catalyst and Antimicrobial, and etc.

Taiwanese semiconductor connector manufacturer Foxcom invested about USD10 million in the Foxcomm-Tsinghua Nanotech Research Center (one of the exhibitors) located on Tsinghua University campus in Beijing. The director of the center is Dr Shou-shan Fan, Professor of Physics, Tsinghua University who spent some time in Stanford University working with Prof. Hong-jie Dai (founder of Molecular Nanosystems in the Silicon Valley). The center mainly conducts basic research on Carbon Nanotubes synthesis, characterizations, and some macroscopic applications such as flat panel FED, thermal conducting materials polarizer, filaments and so on.

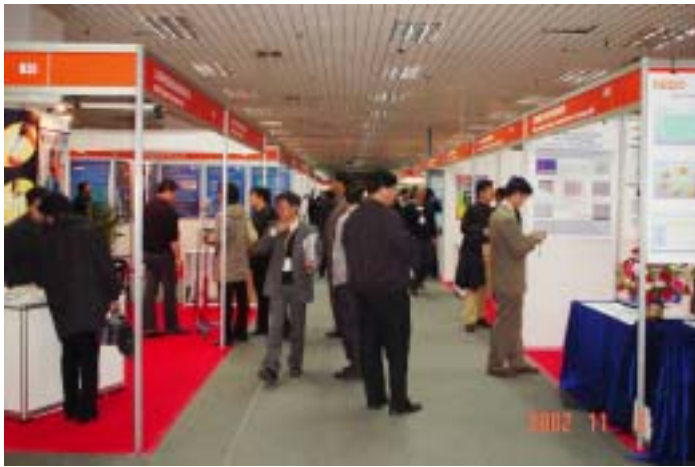
During ChinaNANOMAT2002, the Nanotech Investment, Global Cooperation & Policy Workshop was also held on Nov. 3-4th at the Beijing International Convention Center. The workshop aimed to provide a platform for experts from different countries to share ideas and visions on nanotechnology policy, investment strategy and international collaborations.

There were 15 speakers at the workshop discussing government funding policy and programs, venture capital investment strategy, business network and research highlights. Government speakers include Japan (Mr. Yuji Tokumasu, Dr. Kazunobu Tanaka, Dr. Kenji Kitamura), Korea (Dr. Sang-Hee Suh), and China (Prof. Si-Shen Xie). Speakers from industry and business sector include Japan (Dr J. Sone, Dr Y. Harada, Mr. M. Sano), USA (Mr. Tim Martin, Mr. Po-Chi. Wu, Mr. James R Von Ehr II), EU (Prof. Thomas Heimer), Taiwan (Dr Louis Shu), China (Mr. Fan Zhang), and Australia (Dr Jurgen Schulte). Details of speakers profile can be found at www.nabacus.com

The President of Innovation Engine (IE), Mr. M. Sano spoke about his company commitment to cultivating the Japan-led technology business such as Nanotech and

Optoelectronics and contribute to the revitalization of Japanese economy. IE is the only venture capital company in Japan with main focus in nanotechnology. The President of Weise Labs Inc (currently also CEO of nABACUS Partners Ltd) presented a new business strategy for nanotech business. He believes that the regional strategic regrouping and global business alliances are indispensable for the success of the nanotechnology business.

The Chinese nanotech venture business is still in its infancy. Most star-up companies are spun off from universities or national institutes and are lack of professionals with business expertise and global experience. China, although currently does not have the strong nanotech R & D and industry infrastructure, is offering abundant human resources, attractive market opportunities, and manufacturing competitiveness for nanotechnology business. The Chinese Nanomaterials manufacturing companies are offering low cost nanomaterials globally with competitive quality. Moreover, many oversea Chinese are actively searching for opportunities in China to exploit their expertise and network overseas for developing a more successful career. They are becoming one of the most important elements for nanotech R & D and business in the near future that will drive China into one of the most competitive nanotech countries in the world.



A snap shot of the ChinaNANOMAT2002 Exhibiton Hall (Courtesy of Ms Shigeko Hayashi)



Group photo of the Nanotechnology Investment, Strategy, Global Cooperation and Policy Workshop (Courtesy of Mr. Yuji Tokumasu)



Dr Louis Shu, President of Wise Labs is giving a talk on `Commercialization of Knowledge-Based Nanotechnology Industry` at the Nanotechnology Investment, Strategy, Global Cooperation and Policy Workshop (Courtesy of Mr. Yuji Tokumasu)