

Sustainability - Challenges and Progress Made in China

Report on the Neu-Ulm University of Applied Sciences' Delegation Tour to Shanghai and Hangzhou, October 6th to 13th, 2013

© Prof. Dr. Ulrike Reisach, scientific head of the delegation, November 17th, 2013

The objective of the program, developed by Prof. Dr. Ulrike Reisach, long-time expert for China business and author of several books on China, was to learn about China's sustainability efforts and to see their challenges and progress in practice. The delegation comprised 19 participants from the university's board, its Alumni and Campus Club and the university's circle of supporters. They visited projects, companies and universities in Shanghai and Hangzhou, which are specifically knowledgeable in best practice and in fostering sustainability in China. The participants were briefed in a special session on the scientific program before departure. Some of the participants had previous knowledge and (business) experience in China, others hadn't. But all were keen to learn how China is dealing with the huge growth and increasing environmental challenges and whether "green technologies" made in Germany and/or China are an opportunity for business cooperation for both countries.



Shanghai City Planning Model in SUPEC

The arrival in Shanghai on Oct 6th was late due to a typhoon which was said to be the biggest in 50 years. Because of the „**Transrapid**“, also called Maglev train in China, the trip from the airport to Shanghai was amazingly short. Upon arrival at Long Yan station in the financial district, the first impressions from Shanghai were grey. Due to heavy clouds and restricted vision, the planned eco-architecture tour was postponed and after more than 16 hours of travel, everyone was glad to check in at the hotel. After a brief break the participants went to visit nearby Yu Gardens with their ancient villa and park to learn about their history. The evening concluded in a traditional restaurant with an intro into the scientific program and China's sustainability policy by Prof. Dr. Reisach.

As predicted, the next Monday, a public holiday in China, was extremely wet, but fascinating. The dirt that swapped from the rivers onto the streets was immediately cleaned up, traffic was only minimally affected. The group stayed inside most of the time; it was impossible to stay dry even when going a short distance for example from the bus to the entrance gate and cheap umbrellas that had been bought tore within a few minutes. So **Shanghai's National Museum and Shanghai Urban Planning Exhibition Centre (SUPEC)** were a good choice for first insights and a guided tour about Shanghai's city planning. Themed: "City, Citizens, Environment, and Development", SUPEC displays the past, present and future of Shanghai in different media formats, a 600 sq m giant interactive model (1:500) of the city of Shanghai being its main attraction. All of the participants were amazed to see the magnitude of the city with its 25 million official inhabitants and the detail



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of the city planning. The ambitions to foster sustainable development were highlighted by several special exhibitions, i.e. on the protection of historic and cultural city landmarks, integrated transportation and urban planning, integrated environmental rehabilitation. Special showrooms illustrated the prevention and treatment of industrial pollution, agricultural and rural environment protection as well as education projects on building an ecological civilization and a green future. Those included eco-architecture as well as parks and recreation zones, education and recycling initiatives, water and air quality control and the reduction of CO2 emissions. The group visited a silk factory and a tea ceremony before heading to the pre-arranged dinner with Dr. Peter Hefele, head of the **Konrad Adenauer Stiftung's** Office in Shanghai. Dr. Hefele shared his experience in Chinese politics and the Konrad Adenauer Stiftung's seminars for scientist and journalists on "Energy Use and Climate Change – Perspectives for Sustainable Growth in China" were very beneficial.

Tuesday, Oct 8th, was the first official working day after the "Golden October Week". The delegation started very early and headed to Pudong's Zhangjiang High-Tech Park (ZJ-Park), where the German Centre is located. Ms. Kerstin Koehler, took the group to the **German Energy Centre and College (GECC)**. It is designed to transfer German technology know-how in order to tackle the international climate challenge. In the GECC, the exhibits from German companies show environmentally friendly building, climate control and building services engineering. Ms. Koehler made clear, that a main focus of the GECC is to demonstrate the proper installation, use and functionality of

those technologies. Together with the German Chamber of Commerce they are running a "train the trainer" program for architects and building (services) engineers in order to obtain the German certificate „German Building Energy Manager“. Guest lectures from well-known experts and professional continuing education are offered to improve knowledge and qualifications for environmentally friendly building technologies and to market the relevant products and services.

The **German Centre's** CEO, Mr. Christian Sommer explained the services offered by the German Centre, founded and financed by the Bayerische Landesbank and the financial group of the German Savings Banks. With approximately 30,000 sq m, the modern and spacious building offers office space in small and large units, event space, a business centre, apartments and numerous shops and recreational facilities to German, Chinese and international companies from various industry sectors. The showrooms and event spaces exhibited familiar



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German Centre Shanghai with CEO Christian Sommer



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Dr. Peter Hefele, Konrad Adenauer Stiftung



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products from Carrera and Playmobil. For many small and medium sized companies, the German Centre is a springboard to China and offers all services needed for getting started in the market successfully. Mr. Sommer gave several examples of how the German Centre helped nowadays successful companies with their first steps in the Chinese market.

Mr. Yuhua Wu, Executive Commissioner of CPPCC Shanghai Committee in China, and VP of **Shanghai Zhangjiang High-tech Park Development Co., Ltd.**, and Shanghai Star Enterprises Park Investment Holding Co., Ltd. in the Shanghai Zhangjiang National Innovation Demonstration Zone, welcomed the delegation and presented the most modern high-tech park in Shanghai with its more than 6,000 companies, including several German ones and GE which the group visited



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Shanghai Science and Technology Museum and Zhangjiang High-tech Park with CPPCC Commissioner Wu

on Friday. ZJ-Park is also called the “Silicon Valley” of Shanghai and Shanghai National Innovation Demonstration Zone, because it hosts many start-up companies in the IT, Biotechnology, and Microelectronic sector. Mr. Wu also took the delegation to the **Shanghai Science and Technology Museum**, showing the current status and future of research in developing robots, as well as the various high-tech parks in and around Shanghai and their technological and sustainability achievements. Mr. Wu had already forecasted the significance of a free trade zone in the Chinese transformation process in his diploma thesis in Germany in the early 90s. He explained that China’s first Pilot Free Trade Zone in Shanghai Pudong, based on the strategic decision by the Central Government, represents a significant measure to boost China’s process of economic reform and opening. In addition to that, Mr. Wu shared his many years of experience in German-Chinese and Sino-American cooperation.

After a brief lunch in ZJ-Park’s canteen, the delegation drove 3 hours South-East to Hangzhou by bus. On their way they admired the quality of extremely new highways which were financed through a toll collect system. Alongside the highway, huge billboards showed modern Chinese and Western products as well as new building sites. Acres besides the roads were still flooded. Zhejiang Province with its 52 million inhabitants is one of the richest provinces in China and the closer the bus came to Hangzhou, the more building sites for industry and residential homes were to be seen. Despite its industrial strength and eight million inhabitants, Hangzhou is green, with lots of parks, river banks covered with huge trees and, of course, the famous West Lake.



Photo: UR

Ancient poems praise the beauty of the city and call it “paradise on earth”. The delegation was given a friendly welcome in the hotel by Prof. Mo Yan, students and staff members from the International Office of **Zhejiang Sci-Tech-University (ZSTU)**. Participants took a walk on the flooded lakeside walkways and tried to see the beautiful pagodas on the other side of the lake in the mist. They got a first glance of the city of Hangzhou on their way to dinner.

Wednesday, Oct 9th, was reserved for the highlight of the trip, the visit to Zhejiang Sci-Tech-University (ZSTU) in Hangzhou, one of the oldest research and education facilities in China (founded as Silk-worm University) and HNU's first university partner in China. On a guided tour with Ms. Jessie Zhang from the International Office the delegation saw the huge university campus comprising 17 faculties and 16.000 students, fountains, a green park, and lots of bicycles underlining ZSTU's efforts for sustainability. The university's main fields of study are science, industry, literature, economics, management, law and education. Prof. Jianfeng Hu, dean of the Economics and Management faculty, presented his research on “Energy saving and pollution reduction based on the mechanism of markets: Theories, practices and policies”. Prof. Hu, author of several books on this subject, explained, how the water quality in rivers between neighboring provinces can be improved by a cleverly designed incentive system. Then Prof. Dr. Qiu Songliang, president of ZSTU gave an introduction about the university's history, scientific program and international activities. HNU's President Prof. Dr. Uta M. Feser presented the HNU, and invited the ZSTU representatives to Neu-Ulm. Together with HNU's board member Dr. Dr. h.c. Michael

Krause, both presidents formally signed a partnership agreement between their universities, facilitating the exchange of students and lecturers and scientific cooperation. Ms. Consul Gudrun Lingner, head of the Science Department of the German Consulate General in Shanghai, honored the signing ceremony with her presence, seeing it as a sign of intensifying German-Chinese cooperation and wishing the partnership lots of success. Other attendants from ZSTU's side were Mr. Xiang Fu from the International Office, Prof. Jianfeng Hu, dean of the Economics and Management department and Prof. Dr. Mo Yan, who had arranged the cooperation together with HNU's Prof. Dr. Ulrike Reisach. As is common in China, the delegations exchanged information material and small gifts to show their appreciation. Mr. Baumgaertner who came in Bavarian leather trousers garnered lots of attention and request for photos and he gave an ancient beer stein out of his private collection. In the main building the delegation was invited for lunch in the formidable university restaurant where additional contacts with colleagues were made.



Photo: UR

Signing Ceremony of the Partnership Agreement with Zhejiang Sci-Tech University Hangzhou



Photo: UR

In the afternoon, Mr. Chun Hao Kong from the **Hangzhou Environment Agency** presented an impressive report on the progress Hangzhou has made in moving heavy industries out of town and recultivating former industrial properties into parks and residential homes. With their projects “Blue Sky, Green Water, Greenness and Quietness”, including a greenbelt construction, the Hangzhou Environment Agency achieved significant success of air and water quality improvement. In 2008, they reported 301 days of excellent air quality in Hangzhou city which, in addition to their precious cultural heritage, contributes to the city’s attractiveness for inhabitants and visitors. The pictures and films shown proved the motto „Bring the forest into the city and the city into the forest“. The discussion revealed that Hangzhou is actively pushing environmental consciousness forward: students in elementary and secondary schools are taught to separate different kinds of waste, and public transport in combination with bicycles is promoted as a major commuting tool even at ZSTU. The evening ended nicely in a restaurant close to Leifeng Pagoda with Jessie Zhang.

On Thursday, a warm and bright day, Jessie and her German-speaking friend showed us what Hangzhou is proud of: The **Old Pharmacy and Museum of Traditional Chinese Medicine (TCM)**. Especially the physicians in the delegation, HNU Master of Health Care Management graduates, were excited to see traditional Chinese medicine pharmacy appliances, medicinal plants like herbs, mushrooms, Ginseng and other roots as well as animal and mineral specimens. They could watch Chinese customers getting their medicine freshly prepared according to their doctor’s prescription. Judging by the TCM boom in the West, this

type of medicine can be called sustainable in a very special way. Close by was the house of Xueyan Hu, a former Hangzhou nobleman which showed the wealth, architecture and lifestyle of 1875. Then the delegation was guided through the parks of **Ling-yin Temple**, the Temple of Soul’s Retreat with the oldest, most famous, and influential Buddhist monastery in Southeastern China. The delegation was able to attend the monks’ ceremonies for the reception of a famous old abbot, this was an unforgettable moment. Seeing not only several hundred monks singing and praying turned several young and modern Chinese to prayers as well and made the participants of the delegation aware of the ancient roots of mindfulness, cultivation of higher wisdom and discernment in China.



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Old Pharmacy and TCM Museum



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Evening Reception with Consul General Dr. Roehr



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After driving back to Shanghai, the delegation was welcomed by Ms. Fanny Hoffmann-Loss, an architect from **Gerkan, Marg and Partners (GMP International)** in their downtown office. Very knowledgeable and vivid, Ms. Hoffmann-Loss introduced GMP's prestigious project "Ligang New Harbour City", an eco-city planned for 800,000 residents. This city of the future's claim is to learn from old mistakes, to free the "green city" from airpollution and traffic noise. Lingang New City will be designed as a garden city and structured in circles. The center of the city, consisting of a Dishui Lake (also known as Waterdrop Lake) is for everybody living in the city. The longest distance from any housing complex to the lake will be 1,5 km. Right now already two million trees are growing in the area of the huge eco-project which is scheduled to be finished in 2020.

On Friday, Oct. 11th, the group drove to Anting, 1 ½ hours North-West of the city center, to visit **Shanghai Volkswagen Automotive Co Ltd. (SVW)**, the oldest and biggest German-Chinese joint venture. In its plants in Anting, SVW employs about 20,000 people and produces 11 different models of Skoda, VW and Tiguan. Since SVW aims at making its products as environmentally friendly as possible to be able to offer its Chinese customers safe and environmentally compatible products, Mr. Yimin Hu, head of Personnel Planning/Central HR of SVW, assisted by managers from SVW's plant 3, presented the environment protection activities at VW Shanghai. The delegation then took a guided tour in an electric car through the plant. It was a modern and clean factory which resembled what we are familiar with in Germany, except that in China there seem to be more workers whereas in Germany automated



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← Visit to SVW

Student Lena Burgis
with Prof. Feser →



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← GMP Project
Eco-City Lingang

Ms. Tang Wei and
Ms. Shi Min from
Shanghai Municipal
Environmental Protection Bureau →



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machines do most of the work. A lunch in VW's canteen concluded the visit nicely because, in the cafeteria, the group met two HNU students, Lena Burgis and Martin Schluifelder, who spent their (additional) practical semester in business engineering at VW in Shanghai.

In the afternoon, the delegation drove through heavy traffic to the **Shanghai Municipal Environmental Protection Bureau** which implements the guidelines, policies, laws, rules and regulations related to environmental protection in Shanghai. Ms. Tang Wei and Ms. Shi Min explained the tasks and responsibilities which include supervisory administration of the prevention and control of the pollution of air, water body, soil, noise, radiation, solid waste, toxic chemicals and motor vehicles exhaust fumes. The magnitude of the task of keeping a metropolis with a total of 25 million officially registered and 3 million unregis-



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tered inhabitants plus 600,000 newcomers each year clean became obvious for all participants. The evening concluded with an official dinner with the German Consul General Dr. Wolfgang Roehr in his residence. Through the Consul General's extensive knowledge and experience, the delegation members got insights into diplomacy at its best and in the variety of institutions active in Chinese-German cooperation.

Saturday, Oct 12th, was a working day in China which the group used for a visit to **Econet China**, Shanghai Office. Econet is a non-profit initiative sharing the German know-how and experience for realizing sustainability projects, hosted by the German Foreign Chamber of Industry and Commerce, advertising "Green tech made in Germany" for the Chinese market. As they say, "with econet as a strategic partner Chinese companies can achieve policy goals, attract investors and gain competitive advantages". Ms. Nadine Ulrich answered the participants' questions on building quality and sustainability and provided good insights into the Chinese preferences in housing and the dynamics of the property market. The delegation continued to Pudong where **General Electric (GE)** runs its China Technology Center with more than 2,800 researchers and engineers working in the fields of clean energy, seawater desalination, material-researches, power-electronics, advanced manufacturing technology, LED lighting and transportation. The visit was facilitated by Alumnus Mr. Andreas Binder who works for GE Healthcare in Dornstadt near Ulm. After a presentation of GE's "ecomagination" campaign, goals and achievements by Mr. Yihe Hua and Mr. Anbo Wu, the group enjoyed a guided tour through their exhibition on innovations in the fields of health care, aircraft engines and a new generation of "(eco)green-light".

The last item of the program was a visit to **University of Shanghai for Science & Technology (USST)**. The university was founded in 1906 and has got 22,600 full-time students who are studying at 18 colleges. At the USST there are 30 research institutes, 12 research centers and 3 research associations. It is very internationally oriented and has established formal collaborations with more than 80 universities throughout the world. The visit, facilitated through HNU's vice president Prof. Dr. Elmar Steurer, turned out to be very effective. Ms. Wenju Tian from USST's international Office, speaks fluent German and guided the delegation through the university which even has a German Culture Center, located in a park with European-style buildings. USST's Commissioner for Germany is Prof. Dr. Thomas Zimmer who recently joined USST and contributed to a book edited by Prof. Dr. Reischach in 2008. After the presentation of both universities through their presidents, Prof. Dr. Shougen Hu and Prof. Dr. Uta M. Feser, the delegation was delighted to hear that USST wants to become HNU's next partner university and would like to sign a memorandum of under-



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General Electric's China Technology Center in Zhangjiang High-tech-Park Shanghai



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standing (MoU) during their next visit to Germany. Further talks, led by Prof. Dr. Bin Chen, Vice President for Research and International Affairs, Prof. Fenyu Wu and Prof. Dr. Ulrike Reisach, scientific head of the HNU delegation, revealed that there is a huge potential for cooperation in the fields of Accounting and Taxation, Corporate Communications and Media as well as Health Care Management. The evening concluded with a presentation of Prof. Zimmer, followed by a reception and buffet in the German Culture Center.

On Sunday, Oct 13th, part of the participants had booked a **City Development Tour to the Shanghai World Financial Centre Tower (WFC)**, guided by Ms. Hoffmann-Loss. She explained the history of the colonial style buildings as well as the amazing development of Pudong. By boat, the group set over to this very modern and that day extremely sunny and warm part of Shanghai. The architect explained how the skyscrapers work with wind power and try to save energy, but also critically discussed the claims and realities of eco-architecture in modern China. She took the group to the 492 m and 101 floors high WFC with a wonderful view over Jin Mao Building hosting the Grand Hyatt Hotel. The group then enjoyed a lovely afternoon in Shanghai before heading to Shanghai Pudong International Airport, a fast-growing hub for passenger and cargo traffic and the third busiest airport worldwide. The participants took home a better understanding of the ongoing efforts on sustainability in China, respect for the achievements and a lot of ideas for future cooperation in dealing with sustainability issues.



Foto: UR

← University of Shanghai of Science and Technology

Ms. Wenju Tian, from international Office USST

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USST and HNU are planning to become university partners.



Acknowledgements

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