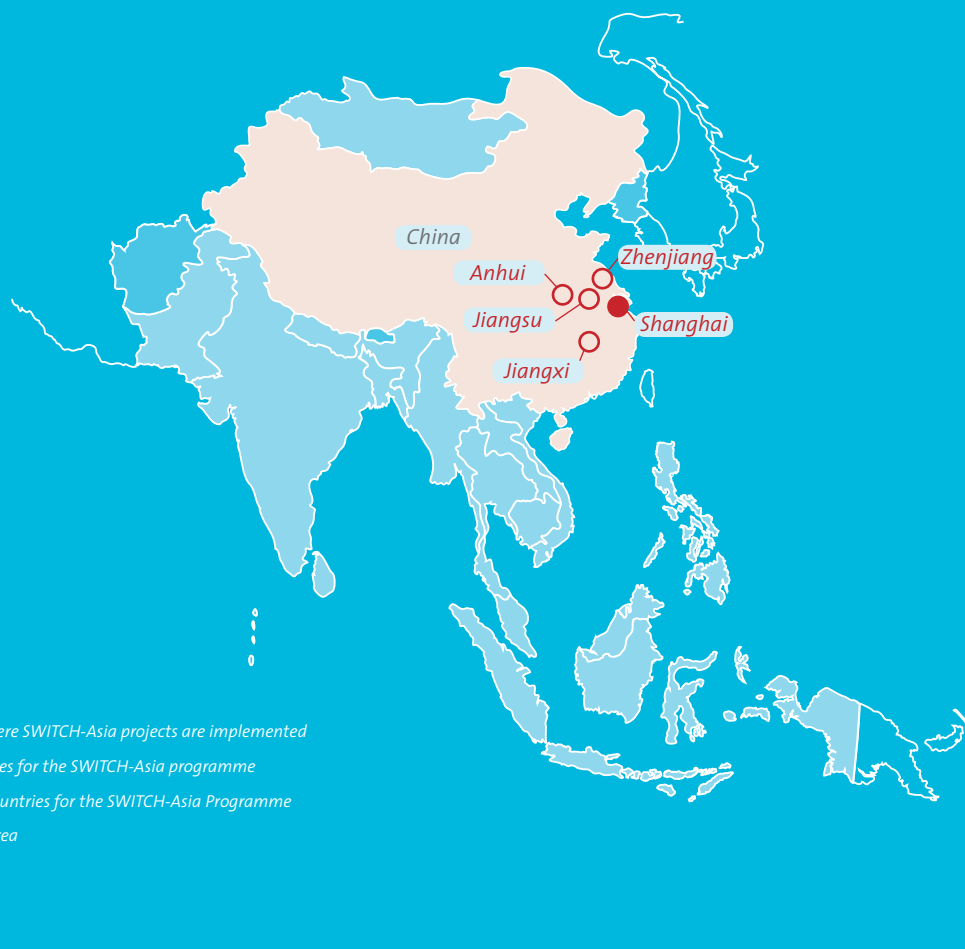




PROJECT PROGRESS SHEET

TRAIN THE TRAINERS: A PROPOSAL TO TRAIN THE CHINESE CONSTRUCTION SECTOR SMES IN ENERGY SAVING TECHNIQUES AND TECHNOLOGIES



The boundaries shown on this map do not imply on the part of the European Union any judgment on the legal status of any territory or the endorsement or acceptance of such boundaries.



**BRIEF PROJECT
DESCRIPTION**

The aim of the Train the Trainers project is to promote sustainable production in the Chinese construction industry by sharing European experiences in energy efficiency, building material standards and installation techniques.

It is designed to tackle the following specific problems connected with construction quality and sustainability:

1. Low-energy efficiency in buildings;
2. Poor quality of construction materials;
3. Poor installation techniques;
4. The mindset that good quality is not worth paying for.

The project addresses these issues through three core activities, namely:

1. Providing training courses to Chinese construction SMEs;
2. Promoting European building standards and best practices; and
3. Contributing to the development of an “enabling policy environment”, i.e. to create a setting that reinforces and/or stimulates enterprises to change their behaviour.

PROJECT PARTNERS

European Union Chamber of Commerce in China (EUCCC), China;
VL Swedish Environmental Research Institute, Sweden;
Tongji University Faculty of Material Sciences & Engineering, China

PROJECT IMPACT

The project is making an impact in Eastern of China, in Shanghai, Jiangsu province, Zhenjiang province, Anhui province and Jiangxi province.

PROJECT WEBSITE

www.train-the-trainers.net

PROJECT ABBREVIATION

Train the Trainers

PROJECT DURATION

February 2009 - January 2013

TARGET GROUPS

- Small and medium-sized enterprises (SMEs) in the construction industry operating in Shanghai, Anhui Province, Zhejiang Province, Jiangsu Province and Jiangxi Province.
- Chinese authorities at the local, provincial and national levels, particularly those related to Construction (e.g. Ministry of Housing Urban Rural Development – MoHURD) and Environment (e.g. Environmental Protection Bureau)
- Consumer organisations and consumer (groups) in that they also affect the demand side of the residential housing market
- EU and member state governments and industry associations

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OUTPUTS TO DECEMBER 2009 TO BE SHARED WITH WIDER AUDIENCE



- Fourteen training sessions held, addressing 404 participants from 242 SMEs on energy-saving insulation techniques, particularly External Thermal Insulation Composite System (ETICS). Eleven sessions took place in Shanghai, one in Hangzhou (Zhejiang Province), one in Hefei (Anhui Province) and one in Nanjing (Jiangsu Province).
- Participation in the 5th Shanghai International Efficient Building and New Construction Materials Exhibition and to the 3rd China Suzhou Energy-Saving Environmental Products and Technology Expo.
- Co-organisation of a workshop (including practical training) with the Center of Science and Technology of Construction, Center of Energy Efficiency in Buildings, Ministry of Housing, Rural and Urban Development (MoHURD).
- Production of the European Policy Paper: EU's Energy Efficiency Policy: Overview of Policies for Energy-efficient Buildings and Building-related Systems which will become available on the Project website.
- Project presentation and contacts with the European Heating Industry, European Wood, European Standardization Expert in view of potential future cooperation.
- Design of a data input sheet on energy calculation for an existing building in Shanghai that allows computer modelling to estimate different impacts on energy-saving produced by different building material and technologies.
- Project input incorporated into the European Chamber's yearly position paper (specifically the Construction Paper). Publication available through the European Chamber.

RESULTS ACHIEVED TO JANUARY 2010

The majority of the first year's trainees came from material supply (37%) and construction (40%) companies, whose business concentrates on Eastern China. Approximately 55% of these companies have more than 50 employees, the rest being smaller. The trainees usually have a background in engineering, yet sessions have included also some

architects, real estate developers, government officials, CEOs and general managers. The majority of the SMEs trained have been able to apply the newly learnt know-how once back at their worksite. This was done through a virtuous cycle of internal training, whereby staff members who got trained by the project have passed on ETICS knowledge to their colleagues, thus

turning the “train the trainer” concept into a practical application. Application of ETICS and specifically wall-insulation know-how has proven fruitful for the trainees: they have been able to improve the quality of their buildings and to avoid traditional problems (e.g. cracks on external walls); they have enhanced their company’s performance and as a result corporate reputation has strongly improved. In fact, a number of companies have reported an expansion of their business following the successful adoption of the ETICS content. This outcome positively meets two other purposes of the project.

Firstly, with many such trained companies having enhanced their business and reputation by switching to energy efficient construction material and techniques, it is being demonstrated that quality is a worthy investment, even in an industry where fierce competitiveness is traditionally based on low costs alone.

Secondly, the successful performance of such companies, following the adoption of ETICS, is raising awareness in the industry and also starting to create a new benchmark in the market, by which for instance major real estate developers prefer to subcontract those construction companies that use these innovative energy-efficient techniques and/or materials.

Data show that larger companies are more likely and more eager to apply energy efficient construction techniques already. Smaller-scale companies perceive barriers to application to be higher than for large-scale companies.

In terms of obstacles to application, consistent trainees’ feedback lists “cost” as the absolute primary factor, followed by “lack of skills”, “poor knowledge” and “little request from owners”. Cost is particularly an issue for larger companies, whereas smaller ones (10-30 employees) claim not to adopt energy efficient measures primarily because of lack of requests from the client’s side. Deficits regarding skills and knowledge refer to a number of different causes, including lack of knowledge on the existence of these (European) energy-efficient materials, on how to select and to apply them.



Exhibition on energy-efficient construction

With its practical component, the training has allowed these difficulties to be addressed by providing a hands-on experience on how-to-use and apply taught techniques and related materials. Not coincidentally, a positive correlation has clearly surfaced between participation in the training and interest for and support to energy-efficient buildings. The general feedback from trainees regarding the training offered is encouragingly positive and the vast majority would recommend it to acquaintances in the field. They’ve also shown strong interest in further pursuing their training, domestically and preferably abroad.

LESSONS LEARNT SO FAR



- One element that has become a particular strength of the project training activities is the combination of theoretical and practical components in each session. Based on what locally detected, training in China is traditionally being given in large classroom formats and strongly focuses on theoretical knowledge. The Train the Trainers” project usually addresses audiences more limited in size (on average 28 trainees per session) while granting hands-on application of what has been theoretically taught to each participant. This formula ensures a more personalised training approach, a closer trainer-to-trainee relation, and comprehensive theoretical and practical know-how.
- An analysis of China’s energy-efficient building industry, feedback from industry insiders and trainees suggests that project training also addresses other stakeholders, particularly designers and architects. Given the structure and organisation of the construction industry in the country, it has been argued that current training can generate a

real impact by also targeting the very first stage of construction development. Involvement of upstream decision-takers, such as designers, architects and real estate developers would grant a more comprehensive and far-reaching mindset-change. Thus, development of modular training is currently under discussion with a view to widening the reach of the project, while always granting a target-group tailored approach.

- Local responses to date have been positive and encouraging both at the industry and authorities level. Reasons accounting for such support include: a) the goals of the project are fully in line with the country’s agenda in terms of sustainable and environmentally friendly development; b) the training offered differs from what is traditionally provided in China and appears to be quite exceptional in the local panorama (especially the hands-on application); c) the specific expertise and well-established reputation of implementing partners makes the project activities credible and authoritative.

OUTREACH AND SYNERGIES

- Although being still at an early stage for long-term decisions, the project seems likely to develop corporate partnerships and official support that may allow its training activities to become self-sustainable in the long run. With corporate actors seeing a benefit in getting exposed within the project (e.g. material supply companies) and authorities supporting its impact on the green agenda, the project training may

develop into a long-term activity, encompassing the four-year funding. However, practical feasibility of such a scenario is still to be thoroughly assessed, especially as the project is now expanding geographically, potentially developing modular training curricula, and engaging with diverse stakeholders.

- The fact that training is being provided by the main local partner, i.e. Tongji University, shall grant a stronger foothold of the project

locally. With both trainers and trainees belonging to the target country, local empowerment and ownership are being ensured through out the deployment of the project. Local partners are not mere 'aid-recipients' and act as proactive actors within the project scope, providing input on how to efficiently maximise aid itself (e.g. identification of target groups, development of training material). European partners are adding to that by bringing in European know-how and expertise, in terms of both research and construction techniques and technologies. With the two sides closely intertwined, the project training may successfully embark on a long-term path.

- Concurrently, the project is talking with a number of European industry associations, lobby groups and other projects (e.g. European Heating Industry, European Wood, European Standardization). These groups share common concerns and goals in the field of sustainable growth, environmental preservation, energy efficiency, Sino-European partnerships, and development of standards in this industry, and the project is well positioned within this framework to positively contribute its expertise, network and resources. The idea behind this is to try and bring as wide a number of scattered initiatives as possible together to

unify joint efforts, enlarge their potential outreach and grant long-term sustainability so to avoid possible risks of replica and provide win-win added-value instead.

- Awareness at the local level goes hand-in-hand with efforts addressing both industry and authorities. Not only does the public at large play a role in the demand side of the market, it also plays a crucial role in prompting a more sustainable consumption of energy. With the project entering its second year of activities and tangible outputs now being available, more initiatives will be held to raise awareness on energy efficiency in buildings and sustainable consumption and production. The project would work as a successful case-study through which the above themes would be explored and presented, thus offering a "real life" best practice, accessible to the public at large.
- On the other hand, the European Chamber's yearly publication of the position paper, now also including input from the SWITCH-Asia Project on Energy, Environment and Construction, ensures that issues of concern and particular attention are presented to relevant Chinese as well as European authorities for further consideration at the legislative and regulatory level.

PROJECT HIGHLIGHTS

- In year one, 242 SMEs have been trained, encompassing 404 individuals during 14 sessions. This was possible thanks to Tongji University's good network and organisation, extensive efforts in reaching out to stake holders, as well as a positive and encouraging response by the relevant audiences.
- In November 2009, the project was exposed and a training session specifically arranged during the 5th EU-China Summit, hosted in Nanjing, capital of China's Jiangsu Province.



The highest level event of the year on Sino-European relations featured keynote speeches by Chinese Premier Wen Jiabao, European Commission President José Manuel Barroso, and Sweden's Prime Minister Fredrik Reinfeldt. With the 2009 Summit theme The Green Agenda: Sustaining Growth Beyond the Recovery, the Train the Trainers project focus on energy efficiency in construction was well in line with the priorities under discussion.