

PRESS INFORMATION 2010-02-04

KOMMITTÉN FÖR SVERIGES DELTAGANDE I EXPO 2010 I SHANGHAI

The Swedish pavilion

The Swedish pavilion has been designed by Sweco's architects. Sweco was commissioned to design the pavilion in November 2008. Work began with an internal competition as a foundation for creative ideas and suggestions relating to the design of the pavilion. A team from the company then continued working under the management of architects Johannes Tüll and Christer Stenmark.

The pavilion is 3 000 sq m in area. Half of this will be used for the exhibition itself, while the other half will be used as premises for conferences and meetings for companies. There will also be a shop, café and offices there. The pavilion consists of four areas linked together by glazed footbridges. On the roof, guests are invited out onto a terrace with views over the exhibition site and towards the heart of the city of Shanghai.

Starting points

Sweco's design is based on the general theme for the world exhibition: "Better City, Better Life". The Swedish theme, "Spirit of Innovation", has provided guidance for the work.

One basic notion which shaped the work is the fact that both nature and the city provide a great source of inspiration for humans. Innovative, creative people are a prerequisite for creation of a sustainable society. Therefore, the building has been designed to invite visitors to surprising encounters with innovative approaches. The building aims to attract and entice visitors. Its expression should convey a promise, indicating that we can and will make the world a better place for the next generation.

The concept

The design concept is based on the interface between city, Man and nature.

The attraction of the city can be found in the networks and social interaction created among people.

Nature is fundamental to the Swedish mind, a resource and a place for contemplation, recreation and inspiration.

The concept is formalised and made most evident in the façades of the pavilion.

The outer façade symbolises the city and consists of perforated metal panels, with a pattern inspired by the plan for Stockholm city centre, the most urban environment in Sweden. At night, the infrastructure of the city really stands out when the major routes are lit up.

The inner façades, with their nature motifs, symbolise the environment of which we are all part. The nature motifs are photographs taken by Mattias Klum, showing different types of Swedish nature. At night, the pictures are illuminated and a number of moving elements are projected on the walls.

Sustainability and innovation

Sweco works on a daily basis with developing buildings and cities on the basis of a sustainability perspective, considering economic, social, ecological and spatial aspects. This approach has provided their inspiration in their work on designing the pavilion.

Overall perspective

In its architecture, the pavilion has been designed with a view to sustainability; hence it can be moved and reused elsewhere. The pavilion has also been designed on the basis of an overall perspective, allowing visitors to feel welcome from the time they stand queuing to enter until they leave the pavilion, having been enriched by everything they have seen and felt.

Choice of materials

One of the innovative elements of the pavilion is the wooden structure, made from environmentally accredited gluelam, which constitutes the entrance to the Swedish pavilion. This structure protects and shade visitors as they wait to visit the pavilion. Wood is a sustainable material in many regards. The structure is complex so as to demonstrate the opportunities offered by the material and to show how wood can be used for so much more than just beams and pillars.

The choice of pale surfacing around the pavilion and pale walls has many positive effects in respect of sustainability. The pale surfaces reflect light. The ground is flat and can also be reused. Recycled Chinese composite stone is used for surfacing. Coarse gravel is laid loose, so concealing surface water, cables, pipes and fittings, and the stones also perform an architectonic function.

The building is clad in a secondary double façade which saves energy and provides shielding from the sun.

The outer walls comprise prefabricated modules which can be reused. The panels on the outer façade are also surfaces with a special pale paint which reflects heat.

Water and energy

Sweden is a world leader in the field of environmental technology and in producing solutions which minimise consumption of energy and water. Many of the solutions developed in Sweden will be displayed and used at the pavilion. Among other things, the pavilion will have advanced systems for water purification in the water dams inside the pavilion.

The pavilion has been designed with a lighting concept. High quality, low energy lighting is used to illuminate the pavilion both inside and out. The lighting is also demand-based so that it does not consume more energy than necessary.

Heating and cooling

A pleasant indoor climate is a must if visitors to and people working at the pavilion are to feel comfortable. Therefore, the latest technology in cooling, ventilation and dehumidification systems is used in the pavilion and regulated by demand. Sweco has specialist installation consultants who have worked on planning and adapting available technology for optimum function in the pavilion.

- The pavilion uses an advanced wooden structure made from environmentally accredited wood
- Pale sections of recycled Chinese composite stone is used for surfacing
- The gravel used for surfacing is laid loose, so concealing surface water, cables, pipes and
- Fittings and the stones also perform an architectonic function.
- An effective open plan layout where all technical installations are collected together in one building, e.g. kitchen,
- Toilets, water, lift, etc. Low water consumption where technology exists.

Sweco's team

Project manager: Christer Stenmark

Chief architect: Johannes Tüll

Architectural team: Anders Neregård, Anna Markström, August Wiklund, Alessio Boco, Peter Järholm. Participating: David Essinger, Markus Lidfeldt, Thorbjörn Andersson

Design: Tomas Nordh, Egil Bartos

Systems: Lars Olof Matsson