India is becoming greener.

SAUTER is a founder member of the Indian Green Building Council.

The country with the world's second-largest population has the ambition to become a leader in ecological building, with a focus on energy efficiency and renewable energies, and motivated by the realities of climate change and the need for environmental protection. The initiators of the Indian Green Building Council (IGBC) have a great deal in common with SAUTER, so it was a logical step for SAUTER Race India to become a founding IGBC member.

As a sub-organisation of the Green Business Centre (GBC) and the Confederation of Indian Industry, the IGBC is an important interface between public and private sectors. The Indian government pays close attention to this platform and already has a significant influence on key decisions.

Green buildings

Ecological building has experienced a dynamic development in India. The total area used for green buildings has jumped from 2,200 square metres in 2003 to almost 1.1 million square metres in 2006, and this figure continues to rise. In particular, most green buildings tend to be: major residential developments, exhibition complexes, hospitals, education centres, laboratories, IT parks, airports, government or corporate buildings.

Decisive factors

A study covering building operators and occupants highlights three main factors that contribute to the popularity of ecological buildings:

- Lower operating costs: a comprehensively ecological building consumes 40-50% less energy than a comparable conventional one. Moreover, construction costs are only approximately 5-8% higher, and the difference will be amortised within 3-5 years.
- Plenty of daylight and some nice views: an ecological building that is flooded with daylight and in close contact with nature will generate a greater sense of well-being. The productivity of the people working in such buildings is 12-15% higher.
- Air quality: continuous fresh air circulation and the use of materials with low volatile organic emissions create a fresh ambience.

Primarily, three prerequisites must be met if ecological building is to be sustainably successful:

- Integrated design: constructing ecologically sound buildings is not the product of one isolated design idea, it requires an all-embracing approach. Investor, architect, planner, building contractor and owner/operator must pursue the shared goal as a well-rehearsed team.
- Top-level commitment: the decision to plan and build an ecological building must be taken at executive level by the building's owners.
- Ambition and consistency: the targets for an ecological building should be extremely ambitious. The plan must be to surpass the benchmarks achieved by comparable buildings.

The experience gathered by an ambitious threshold country in the field of ecological building deserves to be noted in the developed nations. After all, the objective is the same everywhere, regardless of climatic differences: to build or refurbish buildings according to the highest ecological and efficiency standards.

Indian Green Building Council (IGBC):
386 members
259 registered buildings
29 certified buildings

SAUTER Race India:

- Part of the SAUTER Group since 2006, as a joint venture
- Based in Chennai
- 230 employees
- Market leader in India for building management solutions in the pharmaceuticals and biotech fields

World Bank, India

ETL Building, India

Spain is taking climate protection seriously.

Renewable energies are being heavily subsidised.

New regulations and framework agreements introduced in Spain are designed to achieve a reduction in energy consumption and an increase in the use of renewable energies, especially solar energy. This creates new challenges, but also new opportunities for the industry, not least for the building automation sector. "In this field, SAUTER Ibérica is right at the leading edge," says Carlos Crespo, Managing Director of SAUTER Ibérica.

Spain is divided into five climate zones. Different regulations concerning the required percentage of renewable energies apply in each of these zones.

In connection with the current European standard on the use of renewable energies, various new laws have been introduced in Spain, including regulations concerning heating installations in buildings *(Reglamento de Instalaciones Térmicas en Edificios,* RITE) and the technical building code *(Código Técnico de la Edificación,* CTE).

The sun is to be used for heating – and for cooling.

The RITE lays down new rules for, amongst other things, the use of solar energy for: air-conditioning systems: the heating of swimming pools, both indoor and outdoor; and the air-conditioning of places that are open to the public.

The CTE stipulates the minimum portion of solar energy required to be used in the running of certain installations. These rules vary, depending on the geographic location of the installation, the type of auxiliary energy source employed, and the installation's use, i.e. whether it is for heat generation or chilling, or for heating indoor swimming pools.

Where renewable energies are concerned, SAUTER takes the route to efficiency.

SAUTER Ibérica is aware of the importance of renewable energies and, for a long time now, has been following paths that promote the efficient use of these energies, including the following examples:

- Integration of modules for electricity generation from solar energy into the control system of electrically-operated air-conditioning systems.
- Agreements signed with manufacturers of solar panels concerning the fitting of solar modules.
- Holding of specialist training in the field of solar energy in SAUTER Ibérica's training centre. The training course for 'Installers of solar-thermal systems', in particular, has become so popular that the company has had to introduce waiting lists for it. There is more on this topic in the following article.

Extensive experience of solar power systems

There is already a large number of buildings equipped with a control system that was produced by SAUTER Ibérica for hot-water generation or for other energy usage using solar panels. For example:

- Library at Sant Joan de Vilanova
- Citizens' centre, Manresa
- Centre for vocational training, La Celsa, Madrid
- Casa de Campo health centre, Madrid
- Joan Gamper sports centre, Barcelona
- Police commissioner's department, Tarragona
- Pavilion 0, Barcelona Exhibition Centre
- Ciudad Pegaso fitness centre, Madrid
- Hapimag, Girona
- Hotel Dolce Sitges, Barcelona
- Hotel Princess, Barcelona
- Swimming baths in Castellbisbal, Barcelona
- Public swimming baths in Manresa
- Daoíz y Velarde sports centre, Los Docs, Madrid
- El Pujolet sports centre, Manresa
- Apartments in Talavera de la Reina
- Centre for citizens' security, Barcelona
- Private spa centre in El Cigarral, Toledo

SAUTER Ibérica is recognised all over Spain as a highly competent partner in the field of solar energy usage and provides regular further training for both its own energy specialists and those of its clients.