

## Doors & gates – Important components in sustainable building

The first EPDs (environmental product declarations) for doors to be presented at BAU 2011



Drive systems for electric gates and doors have long been a part of the display at BAU, the World's Leading Trade Fair for Architecture, Materials, Systems. The systems and the technology behind them, previously showcased in Hall B2, will be displayed at BAU 2011 in Hall B3 and parts of Hall C3, bringing them nearer to the section on doors and windows. Overall this section of the exhibition will increase to around 15,000 square metres of space. Here, too, the mega trend is sustainability.

Nowadays it is increasingly common for companies to be required to supply information on product sustainability when submitting a bid, and that applies also to manufacturers of doors and gates. However, many manufacturers find it difficult to meet this requirement, says Ulrich Sieberath, Director of the research institute [ift Rosenheim](#): "There is a great deal of uncertainty out there."

The problem is that although sustainability certificates are not a legal requirement, clients, government authorities, investors and the housing industry are demanding reliable proof of sustainability – to give them greater security in their investment and future resale and as independent confirmation of the energy efficiency of new and refurbished buildings. Added complexity comes from the fact that there are differing rating systems internationally (e.g. BREEAM in England, Casbee in Japan, LEED in the USA, Green Star in Australia, DGNB in Germany), all competing with each other. No unified approach seems to be in prospect. So the problem is left with the manufacturers who have to submit bids for jobs that might specify any one of these systems.

ift Rosenheim is therefore working hard on environmental product declarations (EPDs) for building components, in particular for windows and doors. These EPDs are intended to make it easier for manufacturers to provide proof of sustainability. Detailed assessment criteria will bring transparency to the issue and make it easier for clients to distinguish between the various products. Andreas Matschi, Head of Product Management Components at ift Rosenheim, explains it with an example: "If a product is easy to maintain and dismantle, then there has to be a bonus in terms of sustainability and cost-efficiency, as you can then count on lower follow-on costs."

Lobby groups and trade associations are integrated into the ongoing research projects. The aim is to generate assessment systems valid for the whole of Europe. Critically the systems for windows should be material-independent, so as to avoid any playing off of one frame material against another. ift Director Sieberath promises: "At BAU 2011, we will present the first EPDs for doors and windows."

Time is pressing. Sustainability certification is already the norm in large-scale construction projects, although there are as yet no corresponding building requirements, nor is it anchored in legislation. Another factor is that banks are increasingly making their loan conditions dependent on certification results. The property sector and central government, with its construction budget running into billions of euros, are also strongly backing the whole idea of certification. The requirement is for all new government-funded buildings to obtain DGNB certification at the level of silver or, better still, gold, says Ministerial Counsellor Hans-Dieter Hegner, head of the section on construction engineering, sustainable building and building research in the Federal Ministry of Transport, Building and Urban Affairs.

Also at BAU 2011 Germany's Ministry of Building will be turning the spotlight on sustainability. A two-day congress on the first two days of the fair will be dedicated to this theme, and in a special exhibition in Hall C2, the ministry and partners from industry will be presenting corresponding product solutions.

'Green envelope – Sustainable building with windows, curtain walls and doors' – that's the title of the special exhibition being put on by ift Rosenheim in Hall C4. Here they will be explaining, using actual products, how the Environmental Product Declaration can be used as a base for certification according to DGNB, LEED and BREEAM.