



## i.nova: new visions for ecologically conscious building communities

### The Italcementi Group's experience in building new ideas

**i.nova** is Italcementi's platform for innovation, research and the building community, a veritable container of innovation dedicated to the search for new ecological materials at the disposal of architects and designers.



Italcementi Group, a world leader in the manufacture of building materials with about €5 billion in annual sales and 21,000 employees in 22 countries, has always been a key player in innovation, developing new products and solutions for quality architecture.

Italcementi's innovation begins in its laboratories in Bergamo and Guerville, Paris, where about 170 researchers work every day, including chemists, physicists, geologists and engineers, and have filed over 60 patents in the last decade. Italcementi's new research center, known as **i.lab**, is currently under construction on the KilometroRosso Science and Technology Park site in Bergamo. The new construction will boast a surface area of 11,000 m<sup>2</sup>, including more than 7,000 m<sup>2</sup> devoted entirely to research laboratories.

Italcementi has developed a network of international scientific cooperation consisting of research centers, universities and companies in the building materials industry. The current network includes 10 external centers, 30 companies and 26 Italian, European and non-European universities.

The latest new innovative material is **i.light**<sup>®</sup>, the new "transparent" cement developed by Italcementi researchers for Italian Pavilion at Expo 2010 in Shanghai. "Transparent" cement offers a greater luminosity thanks to special plastic resins capable to exploit much wider angles of light incidence than optical fibers. The resins consist of special polymers

that interact with both artificial and natural light to create a soft, warm light inside the building and a clear, bright image on the outside.

Italcementi has also developed a range of environmentally friendly products. For saving energy, a “**thermal cement**” for the production of concretes with very low thermal conduction coefficients, thanks to the presence of vitreous aggregates obtained from recycling materials such as TV and computer screens which would otherwise be difficult to recover. The “thermal cement”, designed both for cladding exteriors and for vertical internal walls and floors, helps to keep buildings cool in the summer and warm in the winter, clearly saving on CO<sub>2</sub> emissions and heating bills.

Italcementi’s long tradition of innovation includes **TX Active**<sup>®</sup>, one of its top-rated products, known and marketed all over the world as the photocatalytic “smog-eating” cement. The materials in this range take advantage of photocatalytic properties which, when applied to any cementitious material, use the action of light to abate air pollutants.