

WORKS VISIT TO THE DIGITAL CUBE FOR ITC ACTIVITIES

**MEDIA-TIC, WITH THE ALMOST-FINISHED WORKS,
IS THE NEW IMAGE OF BARCELONA DIGITAL**



Media-TIC at the intersection of Sancho de Ávila and Roc Boronat

Barcelona, 19 January 2010.- Barcelona Mayor and president of the Barcelona Zona Franca Consortium (BZFC), **Jordi Hereu**, today visited the works of the avant-garde Media-TIC building which the BZFC is developing as the emblematic site for housing the information and communication technologies (ITCs) being developed in Barcelona.

The mayor was accompanied by **Manuel Royes**, State delegate to the BZFC, and representatives of the construction companies Sacyr and Dragados, which have participated in the project.

The building, at the intersection of carrers Sancho de Ávila and Roc Boronat, within the ICT and Media hubs of the 22@Barcelona district, is a cube-shaped building comprising a number of large iron beams covered in inflatable plastic bubbles which afford a glimpse of the building's fluorescent structure. An extremely personal creation by the architect **Enric Ruiz-Geli**, the attractive covering also has a functional purpose as an instrument for regulating light and temperature.

ICT SPACE OF BARCELONA

Media-TIC will be an emblematic centre of the digital world: the building, digitally designed and built using CAD-CAM processes, is conceived as a meeting point for businesses and institutions from the world of ICT technologies. The construction prioritizes spatial intercommunication, interrelation with the 22@Barcelona district to which it belongs, and the development of synergies, as if it were a cluster space.



Works involved in covering the façade, with the characteristic ETFE skin

Media-TIC is a demonstration of Barcelona's aspiration to become an international leader in the audiovisual sector and in information technologies. The Zona Franca Consortium has helped the municipal initiative and got involved as a developer of this home to ICT activities.



Detail of one of the mobile bags that function as a solar screen

SINGULAR SPACE

The building designed by architecture firm Cloud-9, led by Enric Ruiz-Geli, is an expressive combination of creative endeavour, environmental awareness and the goal of being a vehicle for disseminating new technologies that must be made available to all citizens. For that reason it is also a building of great transparency, designed to be a civic space open to the public at large. The base will feature a large diaphanous auditorium with room for 300 people.

With regard to the structure, Media-TIC was distinguished in 2009 with the ECCS European Award for Steel Structures diploma for its beauty and efficiency as a steel building.

In total, Media-TIC comprises a 16,000 m² built area on the ground, plus a further two underground levels (7,100 m²) with 200 car park spaces.

The 38-m high Media-TIC cube made the news halfway through construction when the steel beam structure was hoisted into position. The structure is an internal skeleton set in the urban area of Poble Nou appreciable from a distance both for the beauty of its design and its characteristic fluorescent green colour, which makes it stand out even at night.



Images of the structure being hoisted into position

All the façades of Media-TIC are different. Parts of the interior spaces are revealed from the outside and provide diverse expressions. From the inside, there are stunning views and attractive visuals that differ on each of the nine floors (ground floor+mezzanine+8), shortly to be occupied by ICT businesses which will have their offices there.

A translucent and groundbreaking ETFE (ethylene tetrafluorethylene) cladding, a material recently approved for construction, is in itself an innovation in Spanish building. This 2,500 m² polymer envelope acts as an external cover and at the same time a mobile solar screen to facilitate the penetration of light and make it possible to cut down on heating bills.

The façade thickness is minimized through the use of this light plastic skin (with a total thickness of 0.2 millimetres), while the solar filter has a UV light-filtering coefficient of 85%. The very dense material is also anti-adherent and hardly gets dirty. Its application on the Media-TIC building makes it look on a vast scale like a gigantic cube padded with plastic bubbles.

The configuration of the façades has led to two innovation patents: one called the “ETFE Diaphragm Configuration”, as used on the façade with the most sunshine, and the other called the “ETFE Lenticular Configuration”, deployed on the southwest façade.



Seen up close, the ETFE serigraphy presents diverse layers of solar exposure

ENERGY EFFICIENCY

The building visited today has been designed on the basis of a stringent requirement for environmental efficiency and the principle that the cleanest energy is non-consuming energy. It is also one of the buildings in town where the most energy efficiency criteria have been anticipated.

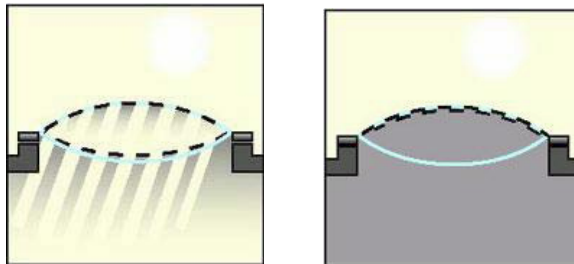
In short, the energy study on the building performed by PGI Engineering found a number of very advanced parameters in energy and environment: Media-TIC’s energy-saving measures are equal to preventing the release into the atmosphere of 114 tonnes of CO₂ per year, or the production of the electricity generated by 700 photovoltaic captors.

The study on the building’s exposure to the sun found that the most important cost in terms of air-conditioning would be cooling, as heating expenses would be minimal. By incorporating ETFE on the façades that face SE (Sancho de Ávila) and SW (CAC façade), the energy charge is cut drastically, allowing savings of up to 20% on cooling costs thanks to the use of the solar filter.

The ETFE skin is activated by pneumatic mechanisms with light meter sensors which, depending on how much solar energy is available, automatically and autonomously activate inflation and deflation devices in the air chambers. The light meters are autonomous in terms of energy production.

The cladding has three layers of material on the façade that receives the most sunshine, i.e., the one that faces carrer Sancho de Àvila (SE). These layers can be automatically inflated using sensors to form two air chambers.

The first layer of ETFE is transparent, but the second and third layers have a reverse-pattern design which, when inflated or deflated, makes the façade transparent or opaque. This avoids the entry of light and heat at times of maximum sunlight. This is what is called the “ETFE Diaphragm” configuration. The system can manage the movement of air around the whole of the façade, with very favourable results in terms of energy efficiency.



Diagrams of the way the ETFE Diaphragm works

Another façade with a singular configuration is that which looks onto the interior street that separates Media-TIC from the Catalan Audiovisual Council (CAC) building, the central office of Media-TIC’s neighbour which is also being promoted by the BZFC.

This façade also receives a fair amount of sunshine and in this case the “ETFE Lenticular” configuration is used, which injects a spray of nitrogen into a number of ETFE longitudinal bags arranged along the SW façade.

This brings the solar factor (SF) down from 0.45, as required by the Building Code, to 0.10, four times less.



View of one of the floors

The other two façades of the cube are glassed-in and have little exposure to the sun. The roof of the building houses a photovoltaic cover and, in one part, a natural gardened area. Rainwater is collected in a tank to maximize use of the building's wastewater circuits. With regard to air-conditioning, Media-TIC is connected to the district's Districlima network, further reducing heating and cooling bills (by around 25%).

GEARING UP FOR THE OCCUPATION PHASE

Work on the city's ICT container will finish in the next few months and the first phase of occupying the 14,000 m² available work space will begin.

The BZFC is investing around 28 million euros in Media-TIC and before the building has been finished a rental agreement has already been reached with the Open University of Catalonia Foundation (Fundació UOC), which will occupy the 5,000 m² of the top three floors. The Foundation anticipates moving its Internet Interdisciplinary Institute and eLearn Center into the building from their current locations at the Castelldefels and Rambla de Catalunya campuses.

Media-TIC is also expected to house the central offices of Barcelona Digital, a centre for R&D, technology transfer and the promotion of innovation specializing in the field of ICTs applied to health, mobility and security. The board of trustees includes a number of ICT sector businesses, the Polytechnic and Pompeu Fabra universities, ESADE, the Government of Catalonia and Barcelona City Council.

With this new emblematic space, the ICT and media sector businesses and institutions at 22@Barcelona, which account for 50% of the total companies located in the district, will be able to create synergies and develop their activities jointly in an environment designed especially for them.

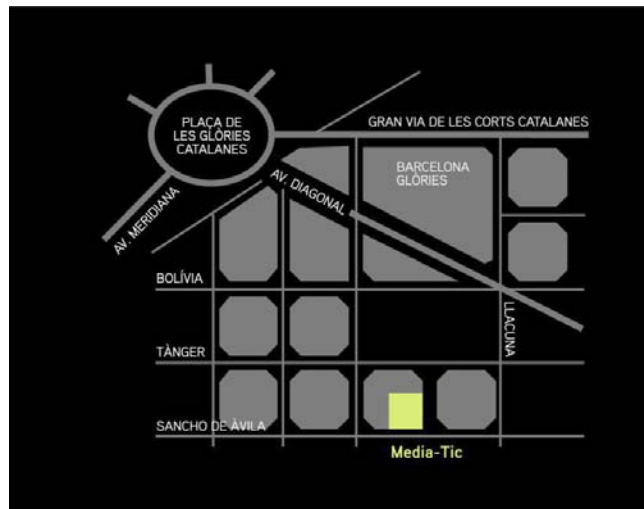
The construction of the Media-TIC building was determined in an agreement between Barcelona City Council and the Consortium which saw the city lease BZFC the land to build on, a plot of 3,572 m², for a period of 50 years. The agreement stipulated that City Council would be granted 10% of the built area free of charge for the activities it decides on, and that a further 40% of the built area would be reserved for the Council to rent out, under favourable economic conditions, to entrepreneurial initiatives in the ICT field.



View of one of the floors of Media-TIC

The lower floors of the building will be used for events related to the promotion of media and ICT enterprises among the public and the business sector, and spaces will be dedicated to exhibitions, training activities and the dissemination of new technologies, taking advantage of the large capacity of the auditorium in the lower vestibule of the building and its excellent vocation as a public showcase. The building will also have spaces set aside for restaurants and so on.

The BZFC is a public agency for economic promotion that fosters property and technology projects and ways of supporting industry to favour the development of Barcelona and its area of influence. The development of this architecturally outstanding building which is also an icon in the city's urban and production redevelopment is a project in which the Consortium is playing a very active role.



Location of the new building in the urban area of Poble Nou

Further information:

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