

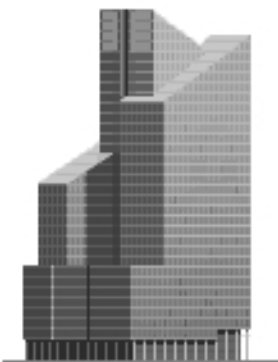
Dexia Tower

projects by LAb[au] on Brussels Dexia-tower

Dexia-tower
Place Rogier (Saint-Josse-ten-Noode)
Brussels, Belgium map.jpg

Architect of the tower:
Samyn and Partners
Michel Jaspers & Partners

Lighting engineer: Barbara Hediger
lightening system by: space canon



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Dexia - Tower

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Measuring 145 metres from top to bottom and counting 38 floors, the Dexia Tower dexia-tower.jpg is the third highest building in Brussels built in 2004-2005 replacing the former Martini-tower, one of the first European multi-functional towers and a former city landmark. The Tower is visible from several major traffic arteries in the capital and is situated precisely in the middle of the Mint Square – North Station axis. It has a trapezium-shaped footprint covering an area of 4,400 square metres.

The building has a total of 6,000 windows dexia-tower-windows.jpg behind each is a lighting fixture consisting on average of 12 light bulbs, each with three LEDs – a green, a red and a blue - that can be combined into a complete colour palette. The building with its 6000 windows each containing 72 LED's can fire up to 420000 Watt of Light. A rapid change in the colour of the lamps instantaneously gives an impression of movement. The façade can show figures, letters, geometric shapes with various effects and also graphic designs.

To start the lighting system, all blinds should be closed as the LED's are not strong enough to light up each window by its own. The reflection on the closed blind illuminates the whole surface of the window. The system is controlled by a central computer. The result is entered in a programme to be translated for the lighting system by the computer. The data are sent through a rapid computer network to three distribution centres spread out on the various floors of the tower constituting a network of 25 Km cables running through the building from the first till the thirty-ninth floor. These centres translate the data for groups of about 100 windows. These data are then distributed to the 100 footlights of each group, which will receive their individual data through a small integrated computer. They will then determine the proportion of red, green and blue necessary to obtain the colour wanted for this particular window. The supercomputer calculates more than 20 images per second and each of the 6000 windows has such a small computer to check the colour to be displayed about 20 times per second.



The Dexia Tower is equipped with a highly effective energy-saving LED lighting system (electroluminescent diodes). Each led, at its maximum capacity, uses 1 watt. As a result of the various colour and movement effects, this maximum capacity is never achieved. The different creations presented so far have never exceeded one third of this total capacity. During the night, the tower is illuminated 9 hours in the winter and 5 hours in the summer. Recent tests reveal that the Dexia Tower uses about a third less electricity than the Eiffel Tower in Paris, while the energy required to light a football stadium costs no less than seven times the energy consumed by the Tower.

The tower is a building with former three (4200 windows) and since 2009 four (6000 windows) illuminated façades, visible both in the neighbourhood close.jpg and from distance. The tower emerges from the city like a signal and contributes to Brussels landscape. The enlightening philosophy of the tower focuses on the tower to become a major urban landmark which due to its artistic projects, all expressing in an abstract manner the relationship between art-architecture and the city, should establish the tower as a light sign, an urban sight.

In this respect the three main axes for the enlightening are:
a permanent illumination (ex. Who's afraid of RGB, chrono.tower)
an original creation every year (ex. Touch project in 2006)
a participation in a limited series of national and international events. (ex. Spectr[a]um)

please refer to the different projects of LAb[au] one by one for more documentation

Official text from www.dexia-tower.com



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