

NEWSLETTER

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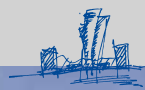
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Wolf D. Prix at the laying of the foundation stone ceremony

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EUROPEAN CENTRAL BANK

EUROSYSTEM



Relocation to the new ECB premises	2014
Finalisation of the new ECB premises	end-2013
Laying of the foundation stone	19 May 2010
Start of main construction works	April 2010
Start of tendering procedure for construction works in packages and lots	February 2009
Preliminary construction works	Summer 2008
Issuance of building permit	May 2008
Planning phases	2006–08
Revision phase	2005
International urban planning and architectural design competition	2002–04
Purchase of the <i>Grossmarkthalle</i> site in Frankfurt	2002

EDITORIAL

Dear reader,

The ceremony of the foundation stone marked the transition from the planning towards reality.

The project was initiated by the Governing Council under the Presidency of my honoured colleague Wim Duisenberg in 1998. Back then, when the ECB had barely



JEAN-CLAUDE TRICHET
PRESIDENT OF THE
EUROPEAN CENTRAL BANK

been founded, none of us could really imagine just how much time and effort such a project would call for. A number of us have been involved in the project since its very beginning when we, the ECB, started to look for a suitable site.

Throughout the last few years, all the parties involved have worked closely together with unfailing energy, determination and conviction to finally make this event possible: the New ECB Premises Project Office and the respective managers; the architect, Professor Wolf Prix, his staff of COOP HIMMELB(L)AU and all planners and engineers; Drees & Sommer, the external project managers; the City of Frankfurt, its politicians as well as its various departments, especially the Urban Planning Department; and also the preservation authority of the state of Hesse.

The decision in favour of the chosen site was taken on the basis of a variety of criteria, such as the size of the site and its location on the banks of river Main, as well as the fact that the Ostend is a lively and well-functioning district close to the centre of the City of Frankfurt. The size of the site – and of the building to come – has been chosen in view to possible extensions of the Eurosystem and the European Union, the former today encompassing 16 countries and around 330 million citizens, so as to be able to fit all ECB staff in the new premises on the site.

Our new premises will be functional and will meet the complex requirements of a European institution that works very closely together with our colleagues of the national central banks, thus playing the central role

for the Eurosystem and the European System of Central Banks (ESCB) with respect to analysis and decision-making, and as effective and efficient captain of the European monetary team mandated with the primary goal of maintaining price stability. Price stability is not only the primary objective set out in the Treaty, but also what our democracies, the people of Europe are asking us.

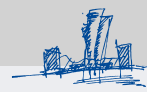
The new buildings will allow for the necessary flexibility to foster interaction and communications both among our staff, the Eurosystem and the ESCB. At the same time, our new premises will reflect the values – integrity, excellence, efficiency and transparency – that are essential to our activities. We are also committed to ecological sustainability: to this end, our new premises will also be environmentally friendly and energy-efficient.

The *Grossmarkthalle* in itself has been yet another challenge: together with the historic preservation authorities of both the City of Frankfurt and the State of Hesse, our project team and the architect and planners, the structural engineers and restoration experts worked hard on every millimetre of the market hall to gain an insight into its current state, to discuss all details and aspects of its desperately needed restoration and how to convert such a building into an integral part of our institution's premises.

This is no time for complacency. We still have many challenges to face, and we have to make sure that the construction work proceeds smoothly. I am very confident that we will continue the very good cooperation between all parties that has characterised this project so far. Our common goal is to ensure that the new building complex will become reality as planned to provide the ECB with healthy and functional headquarters while keeping the building costs within the foreseen budget and using our resources responsibly – the budget has to be respected. This is essential.

I wish all of those who will either be continuing to work or who are just starting to work for our new building all the best and good endeavours!

Jean-Claude Trichet
President of the
European Central Bank



NEWS

Site working hours

The laying of the foundation stone on 19 May 2010 marks the official start of construction work on the European Central Bank's new premises. This construction project presents both a logistical and a scheduling challenge to all the parties involved.

Construction work will be implemented as efficiently and expeditiously as possible in order to avoid unnecessary delays to site operations and, as a result, longer-lasting noise and traffic disruption. Therefore, one of the extra requirements will be the delivery of bulky components (e.g. facade elements) also outside normal working hours.

Shortly after the laying of the foundation stone, work will start on concreting the basement slab, whose sections must be produced on a continuous basis to ensure the correct load-bearing performance. As a result, from June to September 2010, concreting work will be performed in individual construction stages ranging from some 20 to 30 hours in length. This means that concreting

will have to be carried out without interruption, i.e. also at night, on around 15 days in total.

Over a period from December 2010 until around February 2012, a two-shift working pattern will be scheduled for construction work on the upper stories of the twin towers; where necessary, the first shift will begin work at 5 a.m. and the second shift will stop work at midnight.

During these months, the beams for steel construction work will also be lifted into position. To prevent the beams from being subject to heat and, therefore, expansion as a result of exposure to sunlight, this work may only be performed at night. A period of some 30 days in total has been scheduled for this work, which will be undertaken from mid-2011 to mid-2012. From autumn 2011, the same will apply to the lifting into position of the facade elements.

All firms involved in the construction of the new building are anxious to limit the amount of nuisance to local residents as far as possible.



CONSTRUCTION

The energy concept for the new ECB premises

From the very outset of the preparations for the international urban planning and architectural design competition, it had been the stated aim of the European Central Bank (ECB) that its new premises should be 30% more energy-efficient than stipulated by the *Energieeinsparverordnung 2007* (German energy-saving directive of 2007).

Within the scope of that competition, it had laid down the spatial and functional specifications, as well as precise energy consumption requirements, in 2002. One of the key requirements was that of an integrated planning process, which meant that the architect had to work together from the outset not only with a structural engineer, but also with an energy and air conditioning designer in order to optimise the building's energy efficiency and sustainability. The criteria of sustainability and optimal energy efficiency already had to be taken into account in the first drafts of the designs for the ECB's new premises: economic, ecological and social aspects had to be weighed against

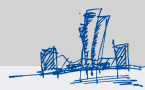
the future cost of maintenance and repairs, as well as energy consumption. Throughout the competition and the subsequent tender procedure, great emphasis was placed on the design's energy efficiency and on the needs of sustainability. The resultant energy concept has the following features.

Rainwater harvesting: The *Grossmarkthalle* itself has a roof area of 10,000 m². A system will be installed for collecting rainwater, so that it can then be used both to irrigate the gardens when there is not enough rain and to flush toilets.

Recycled heat: The waste heat generated by the computer centre will be fed back into a ceiling heating system in order to heat the offices, as well as into the underfloor heating system of the *Grossmarkthalle*. The new ECB premises will moreover be connected to the energy-efficient combined heat and power system of the City of Frankfurt am Main.



The elaborate design of the facades will play an important role in helping the ECB to meet its energy efficiency targets. A mock-up building was erected to first of all verify the technical, functional and architectural details of the facade and the internal design.



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Efficient insulation: The *Grossmarkthalle's* surface areas, i.e. the roof and windows, will be insulated in order to create a thermal envelope between the outside and inside areas. The inside areas, such as the conference rooms, will have their own microclimate, as they will be integrated into the market hall as a separate house-in-house system.

Natural ventilation of office spaces: In addition to the central ventilation systems, motorised ventilation elements incorporated into the building facades will allow for the direct natural ventilation of the offices. As a result, individual fresh air requirements can thus be met as desired without the use of mechanical ventilation. People in the building will consequently also have more of an idea of what is going on outside.

Efficient solar protection and low-energy lighting: Highly efficient sun screens/glare shields will be integrated into the facades in

order to prevent the buildings from absorbing too much heat from the sun.

Another way to save energy is to use natural daylight. The offices will be fitted with daylight sensors, so that the lights switch off automatically when there is sufficient daylight. In terms of the artificial lighting for the offices, as well as for the atrium and the market hall, there has been much research into ensuring that they are lit sufficiently and efficiently at all times of the day.

Use of geothermal energy for heating and cooling: In order to further reduce the energy costs of the building, geothermal loops were incorporated into the pile foundations, which descend about 30 metres until they hit Frankfurt's bedrock. These loops can be connected to the water circuit and the heating pumps in the heating centre in order to extract heat from the ground in winter and coolness from the ground in summer.



■ FORUM

Wolf D. Prix at the laying of the foundation stone ceremony

Not only does architecture have the job of providing a shell for functions, but its architectural aesthetic must also allow three-dimensional cross-references to be produced to the culture of our globalised society without denying its location. The dialectic of old and new – the carefully renovated *Grossmarkthalle* and the new set of towers – will mirror this synchronicity.

Towers are archetypes of architectural history. They convey an overview and are symbols.

In this case, the towers on the new site are aligned in such a way that there is a visual axis to Frankfurt's city centre. I am convinced that the towers' new typology, which

creates a preciseness and significance of form, will make them an icon and three-dimensional symbol of the European Union.

Laying the foundation stone not only marks an important moment for the owner and future users, but is also a pivotal one for us architects. After all, it is a moment that takes us across a threshold, from blueprint to building, as a conceptual structure becomes a real building.

I would like to use this opportunity to thank all those who have made possible and supported this project. And I wish all of us who are involved in the building work an accident-free completion.