

# NEWSLETTER

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EUROPEAN CENTRAL BANK

EUROSYSTEM



Relocation to the  
new ECB premises

2014

Topping out ceremony

20 Sep. 2012

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 *Grossmarkthalle*  
site in Frankfurt

2002

## EDITORIAL

# Dear reader,

Since the topping out ceremony on 20 September 2012, further progress has been made on the construction works for the new ECB premises. The high-rise, comprising the north tower (45 floors) and south tower (43 floors), reached its final height of 185 m with the completion of the steel framework



**THOMAS RINDERSPACHER**

PROJECT MANAGER FOR  
THE NEW ECB PREMISES PROJECT

for the technical areas in early March 2013. Then, just before Easter, the antenna was installed, taking the actual height of the building up to 201 m. The new premises are therefore now a prominent feature of the Ostend district and enrich the Frankfurt skyline. Although the structural works have been completed, there is still a lot of work to be done. Every day there are approximately 1,000 workers on site from numerous companies that are working in close cooperation to finish our new headquarters on time. The installation of the technical infrastructure and the fit-out works, which make a building useable, are already under way on the majority of the office floors, while the final panels of the glass facade are being mounted on the upper levels. The types of facade encompassed in the building ensemble are explained in detail in this newsletter.

Watching the high-rise emerge from its surroundings, the original substance of the *Grossmarkthalle* (Frankfurt's former wholesale market hall) be carefully restored, the new main entrance take shape and the contours of the future press centre become visible makes me proud to be part of the team

established with the launch of the New ECB Premises project in 1998.

I would like to take this opportunity to thank the entire team, without whom the project would not be where it is today. Some team members have been on board since the very beginning, while others joined later on once the architectural design competition was up and running or the planning phase was under way. Nevertheless, over the years, the team has built up a unique knowledge base that is being put to good use during the ongoing construction process.

To help the comparatively small team at the ECB steer the project, the ECB engaged an external project management company, which is crucial for an undertaking like our new headquarters. Since 2004 the external project management company, along with the architect and special planners, have contributed their expertise and been an essential part of the project.

A construction site with such a multitude of companies carrying out various works cannot be expected to run smoothly. Problems arise that often need to be solved immediately, taking into account cost, time and quality. For this to be done effectively, it is essential that the construction companies, architect and planners all work together in close coordination and cooperation, which is the joint responsibility of the construction manager and the planning firms.

All parties involved in the New ECB Premises project are working hard to complete it with a view to the ECB relocating in 2014. The area around the new premises will be sophisticatedly, yet naturally, landscaped – hopefully creating an enjoyable environment for us, our neighbours, the citizens of Frankfurt and all our future visitors. I am confident that our new headquarters will be a good home for our staff and raise the profile of the historic *Grossmarkthalle* among our many visitors from all over the world.

**Thomas Rinderspacher**

Project Manager for the  
New ECB Premises project



## NEWS

# At full height

The new double office tower reached its final height in March 2013. Work on the facade of the atrium is moving forward, while the atrium itself is currently filled with one of the largest sets of internal scaffolding in Germany, providing the means for the installation of the technical infrastructure underneath the interchange platforms.

Meanwhile, on the northern side of the *Grossmarkthalle*, the entrance building has become a clearly visible element of the overall building ensemble. It will house the press centre and mark the main entrance to the ECB.

As part of the restoration of the roof shells of the *Grossmarkthalle*, the concrete surfaces were sandblasted and any imperfections repaired. Where this was not possible, the surfaces were cleaned up by hand. The restoration of the hall's western wing building is making headway, including the re-pointing of the brickwork. The installation of the technical infrastructure and interior fit-out is being carried out alongside the restoration of the areas being retained as original features.

The landscape design for the area surrounding the new ECB premises, developed by the Swiss company Vogt Landscape Architects, is gradually taking shape. First came the planting of Ginkgo trees to the north-east of the site in November 2012. This was followed in spring 2013 by a second tree planting session on the southern side of the site. Owing to the long winter and brief spring, the planting season was very short. If, as temperatures start to rise, trees begin to grow leaves or blossom, they cannot be planted. The planting of the trees will therefore recommence in October 2013. Before that, during the warm summer months, it is planned to create pebble-filled river valleys running in the same direction as the river Main and to intersperse these with grassy plateaus. At the same time, irrigation systems will be installed and the necessary security features will be subtly incorporated into the landscaped areas. Walls, which look like they have been carved out of the ground, have already been put up as the outermost boundary on the southern side of the site, but the first fence panels will not be put in until at least June 2013.

## CONSTRUCTION

# Facade of the double office tower: complex geometry

The mounting of the facade panels for the double office tower started in February 2012. As each floor of the towers is closed off, work starts on the interior fit-out and installation of the technical infrastructure.

**Office facades:** A combination of different geometries makes the double office tower look like a large crystal, with oblique panels on the western and eastern facades and hyperbolic paraboloid surfaces on the northern and southern facades. A hyperbolic paraboloid surface is essentially a concave curved surface that is produced by moving an open-down parabola along a fixed open-up parabola. What is important, however, is to ensure that the hyperbolic paraboloid surface can be produced through two sets of straight lines, so that the hyperbolic paraboloid can be constructed from rectilinear elements.

On this basis, 90% of the facades of each tower consists of flat glass panels. Each one is identical to the other and runs the entire height of each storey, so that only the vertical fixings are visible. The result is a homogeneous curved glass surface made up of straight panels.

These surfaces are being covered with a state-of-the-art "shield hybrid facade", which is a refined synthesis of classic facade constructions, combining the functions of box windows, double-glazed windows and double facades. In order to meet various requirements relating to fire prevention, the reduction of radar reflection, the cleaning of the facades and sun protection, a special type of glazing was chosen, consisting of sun protection glass on the outside and thermal insulation glass on the inside. Aluminium blinds are also fitted between the two panes of glass to enhance the level of sun protection.



The offices will be air-conditioned, but there will also be the possibility of natural ventilation through the use of a new opening mechanism, whereby the panes move out horizontally from their frames. This mechanism is “hidden” behind the outer facade and supplies the offices with outside air through the ventilation slots that it creates. If the ventilation slots are open, the air conditioning automatically shuts off in order to conserve energy.

**Atrium facade:** The panes of glass for the facade of the atrium are attached to a customised steel grid, which is strong enough to bear the weight of the glass panels along the full height of the atrium and is therefore clearly visible through them. In line with the design concept, the glazing of the atrium is neutral in colour and transparent. This will enable people to see straight through the atrium and view the high-rise as two separate towers. The roof of the atrium is also made of glass to enhance the impression of a transparent atrium.

## ■ CONSTRUCTION

# Facades of the *Grossmarkthalle*: old building restored to its former splendour

**The characteristic brickwork and concrete grid facade of the *Grossmarkthalle* have been restored in close collaboration with the competent historic preservation authorities. When designing the windows for the market hall, many different facades and requirements had to be taken into account.**

Extensive repair work has been carried out on the brick facades of both wing buildings. Any bricks that were damaged have been replaced with those collected during the removal of the annex buildings. All the joints of the brickwork have been raked out and, in keeping with architect Martin Elsaesser's original design, filled with two different colours of mortar – a pale mortar for the horizontal joints and a dark mortar for the vertical joints – in order to accentuate the horizontality of the brick courses.

The concrete grid facades on the northern and southern sides of the *Grossmarkthalle* have been carefully repaired and cleaned, and all the windows, with a few exceptions, have been replaced. The new steel window frames have been fitted with two panes of glass separated by a 10 mm air gap. They therefore had to be constructed in such a way that they were as narrow as the old ones, but strong enough to support double glazing. For the staircase windows in the two wing buildings, it was nevertheless possible to fit new window panes into the old steel sections.

Above the concrete grid facade, glass gable roof constructions are being mounted between the roof shells and the eaves,

forming a flat shield over the horizontal glazing. They are built in a similar way to the original gable roof constructions, allowing rainwater to drain off towards the eaves.

The brick facades of the ground and first floors of the hall have been removed and replaced with rows of windows, in order to let in more natural light. The windows on the northern side have been fitted with thermal insulation glass, while those on the southern side have been fitted with glass that provides both sun protection and thermal insulation.

In the eastern wing building, in agreement with the historic preservation authorities, space has been created in the brickwork for rows of windows, so that its facade is now similar to that of the western wing building. As the cold storage rooms used to be located in the eastern wing building, its facade had virtually no windows.

According to the “house-in-house” concept envisaged by the architects COOP HIMMELB(L)AU, the conference area and staff restaurant will be integrated into the *Grossmarkthalle* as separate building elements. These will have a structural framework of steel posts and beams, and individual facades consisting of thermal insulation glass, as, given the purpose of the *Grossmarkthalle* back in the 1920s, it was designed in such a way as to maintain a constant room temperature of 10-14 degrees without the use of technology. The new building elements are therefore enclosed units with their own temperature regulation system.





## CONSTRUCTION

### Facade of the entrance building: a clearly defined approach

**The distinctive entrance building, in the foreground of the double office tower and the long horizontal expanse of the *Grossmarkthalle*, will round off the building ensemble and define the look of the ECB.**

The entrance building not only projects out of the *Grossmarkthalle*, but also rises above it by a few metres. To enable its construction, three out of a total of 15 roof shells were removed. However, these were not the original shells, but replacement shells for those destroyed during the Second World War. As they did not constitute part of the original substance of the building, it was possible – in agreement with the historic preservation authorities – to remove

them to make way for the entrance building.

The entrance building projects out of the *Grossmarkthalle* by about 20m in the direction of Sonnemannstrasse. Its northern facade, behind which the press centre is located, is particularly striking: in contrast to that of the double office tower, it is a three-dimensionally curved surface consisting of hyperbolic glass panels.

The walls of the entrance building, as well as its underside, will be covered with aluminium sheets, while panels of glass will break up the concrete grid facade of the *Grossmarkthalle*, clearly marking the main entrance to the ECB.



## LANDSCAPING

### Reinterpreting the English garden

**By reinterpreting the traditional landscaping theory for English gardens, the Swiss company Vogt Landscape Architects has developed a sophisticated concept for the ECB's new headquarters, which includes around 25 different types of tree and more than 700 trees in total. Although the outcome often appears effortless and natural, the process of landscaping is a multidisciplinary field with a long history.**

Before the 18th century, the field was known as landscape gardening and referred mainly to the planning and design of gardens for monasteries and royal properties, such as the Palace of Versailles in France. Designers tried to emulate the allegorical landscape paintings of European artists and sculpted into the land stereotypical compositions with manicured hills, lakes and trees. But in the early 18th century, these more formal, symmetrical gardens “à la française” were replaced by English gardens as the leading gardening style of Europe.

The defining principle of English gardens was that they should be in harmony with the surrounding landscape and present an idealised view of nature, loosely modelled on the typical English countryside. What is typical about this style is how the landscape architects – in contrast to artists – tried to reflect the desire of visitors for constantly

shifting viewpoints. Often these parks and gardens would also include architectural follies such as lakes, bridges, gothic ruins, castles and other picturesque architecture.

Following the principle of English gardens, in November 2012 the first Ginkgo trees were planted at the new ECB premises, signalling the start of the realisation of Vogt's landscaping design. Before creating the design, Vogt Landscape Architects analysed the site in great detail to understand fully its qualitative attributes and decided to make the river a central element in the landscape design for the park. The basic idea is that of abstracting the typical terrain of natural flood plains: the particular topography of a river landscape with its clefts and plateaus, backwaters, undercuts and slopes is abstracted to create geometric forms. The result is a park consisting of a stylised river landscape that runs in the same direction as the river Main.

The continuous landscape design incorporates the *Grossmarkthalle*, the new high-rise and essential functional equipment and structures, without losing its quality as a park and its landscape identity. The vegetation both enhances and questions the impression of a river landscape with a combination of typical river plant life and exotic plants that appear strange in such a habitat. Nevertheless, most of the trees are deciduous, thus





enabling people to experience the different seasons. Vogt deploys three concepts of tree arrangement: rows of trees, tree groups and solitary trees. Meadows with widely spaced trees interchange with dense woods, natural hedges, typical riverbank formations and rows of trees, which reiterate the form of the river valleys. The topography repeatedly provides vistas of the various zones and the river. The observer's view varies and will be open, framed or conducted, both from inside and outside the area.

Vogt Landscape Architects have created a park which appears to have grown naturally, although everything of course has been planned and thought through in great detail. This also applies for the necessary security features, which are incorporated into the landscape as walls and fences. These are embedded in layers in the park so that, insofar as is possible, the green space is perceived neither from the outside nor from the inside as an enclosed site, but primarily

as an open park landscape. The material design of the external wall is such that the wall looks like an element of the park. The fence, which partly follows the undulation of the landscape, consists of vertical metal panels that are separated from each other according to the prescribed range. The aim is to reduce the impact of a visual barrier and not cut off the ECB from the outside, thereby allowing pedestrians to see through the fence.

Together with the parks in the surrounding area – such as the *GrünGürtel* (Frankfurt's green belt), the *Mainuferpark* (an area of parkland along the banks of the river Main), the nearby *Hafenpark* (a new park based on the theme of "sport and movement") and the *Ostpark* (the park in Frankfurt's Ostend district) – the landscape around the ECB's new premises will contribute to the creation of a "green lung" for the city of Frankfurt.



Photos: Vogt Landscape Architects

## FORUM

# Welcome to the Ostend

**If you delve deeper into Frankfurt's Ostend, you will find that it is home to numerous establishments that are all unique in their own way.**

These include, for example, the Ensemble Modern – an ensemble for contemporary music that ranks among other leading ensembles from London, Paris and Vienna.

Or the *Osthafen* (eastern harbour), which, in an incredible feat of engineering and endeavour, was built from scratch between 1908 and 1912, to become one of the ten largest inland harbours in Germany, linking waterways with the rail and road networks at the heart of Europe.

And, of course, there is *Gref-Völsings*, the top address for *Rindswurst* at Hanauer Landstrasse 132, where excellent beef sausages, renowned not just in Frankfurt but all over the world, have now been produced for almost 120 years. All of the above are one of a kind in their own very special way.

Very soon we will be able to welcome another unique establishment to the Ostend. If all goes to plan, with the many elements required for construction gradually disappearing and the interior fit-out works making progress, the new ECB premises will be ready for occupation in 2014.

The central bank of Europe, which attracts attention from all over the globe, will then

be our new neighbour in the Ostend.

Of course, the Ostend would have also evolved without the ECB, but the ECB has brought an added dimension to the Ostend's transformation that would not have taken place without it.

This transformation has not always been a source of joy and enthusiasm, with many people regarding it more with scepticism and suspicion, and, in some cases, even fearing the changes in the district.

But rather than doing that, we should recognise the opportunities opened up to us by the decision in 1993 to make Frankfurt – rather than one of the other 12 competing cities – home to the ECB. These opportunities may be varied and may arise over the short and long term.

First and foremost, we should be proud to be able to host a key European institution in the Ostend, which, so to speak, will soon become a serious rival to the "east end" of New York or London.

On this note, the Ostend extends a warm welcome to you, the ECB, and looks forward to your joining us here soon!

### Bodo Pfaff-Greiffenhagen

Chair of the District Council for the Bornheim/Ostend District



Bodo Pfaff-Greiffenhagen  
Chair of the District Council for the Bornheim/  
Ostend District

## IMPRINT

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