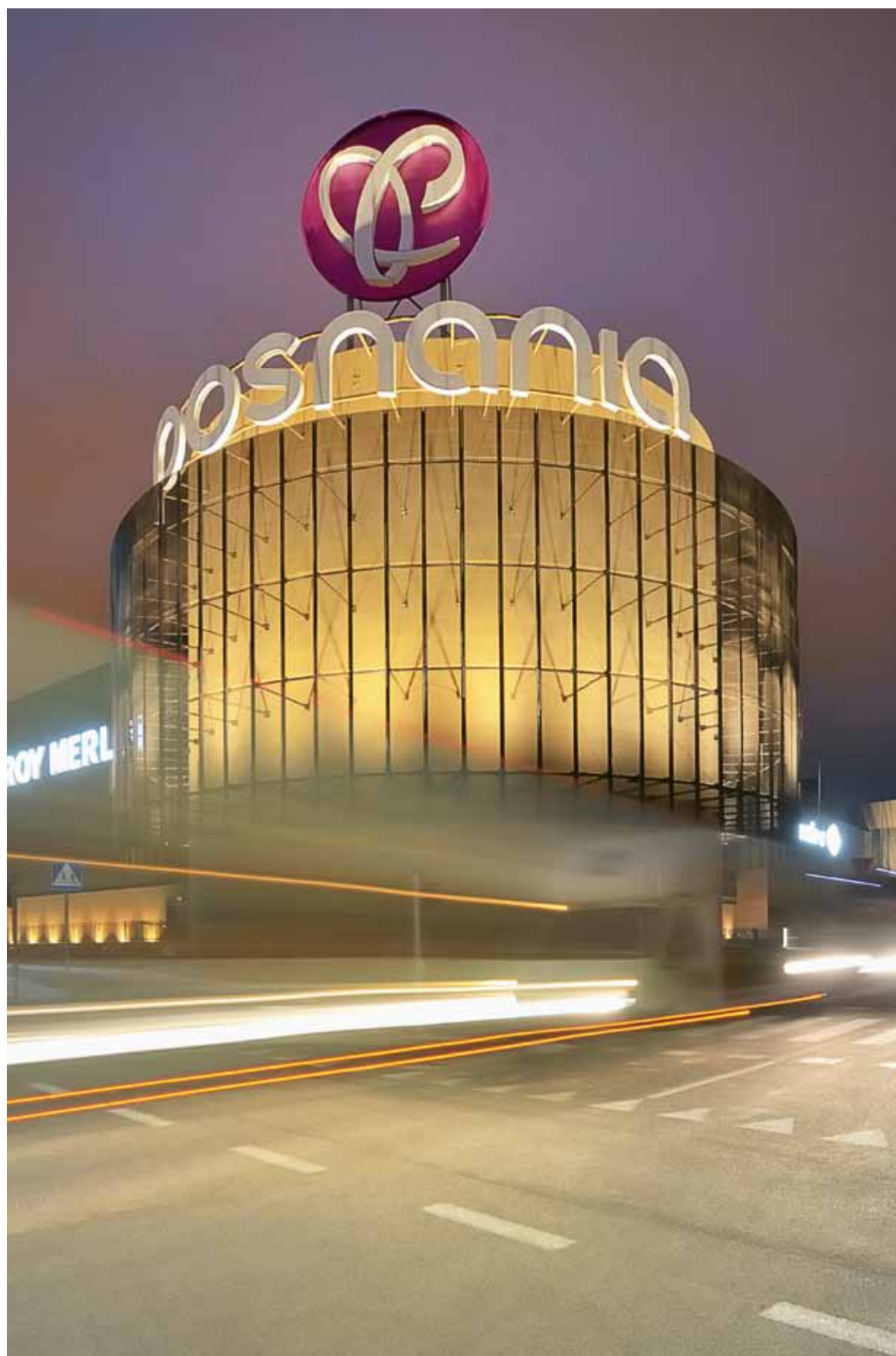


# Posnania

## Poland











# Posnania shopping mall

## Poland

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**Technical characteristics**

<b>320,000 sq. m</b> Floor area	<b>39,000 sq. m</b> Surface of false ceilings including 12,500 sq. m acoustics	<b>22 lifts</b>
<b>100,000 sq. m</b> Gross leasable area	<b>19,700 sq. m</b> Marble and wooden floor spaces	<b>13 works of art</b>
<b>240,000 cub. m</b> Volume of earthworks	<b>3,000</b> Workers mobilised at the height of the works	<b>22 screens</b> and digitised walls
<b>143,000 cub. m</b> Volume of concrete poured	<b>1,400,000</b> Hours of work for the structure phase	<b>1 conference room</b>
<b>15,200 tons</b> Weight of the steel reinforcements	<b>27 months</b> Duration of the works	<b>1 multiplex</b> with 8 cinemas
<b>1,500 tons</b> Weight of metallic structures	<b>305 brands</b>	<b>1 fitness zone</b>
<b>95,000 sq. m</b> Surface of pre-cast slabs	<b>220 boutiques</b> including 40 cafes and restaurants	<b>1 swimming pool</b>
<b>1,000 sq. m</b> Daily production of floor area all types combined	<b>30 escalators</b> and travelators	<b>3 300 places</b> in the car park

Space and light, spectacular volumes, outstanding architecture, an innovation-packed project, only superlatives do justice to the Posnania shopping mall designed by American agency RKTŁ. This XXL shopping temple offers customers a new experience and is the most ambitious venture carried out by the Apsys Group in Poland.

To bring this exemplary operation in Poznań to a successful conclusion, the global operator in commercial real estate called on the competence of Eiffage through its Eiffage Construction firm. Throughout the 27<sup>th</sup> months project, the company coordinated all the trades in masterly fashion and mobilised no fewer than 1,100 collaborators during this period with a spike of 3,000 workers during the leasing phase.

The work on the main structure continued at a sustained tempo and it required flawless organisation to produce almost 1,000 sq. m of floor area on a daily basis. The building site was a huge challenge: 14 cranes operated simultaneously over 80,000 sq. m in conditions of absolute safety, 200 sub-contractors and 300 suppliers were involved, 143,000 cub. m of concrete were poured, 19,700 sq. m of marble and wooden floor areas were laid, 22 lifts, 30 escalators and travelators, etc., were installed.

Posnania complies with the most rigorous environmental regulations and it was given the Breeam certificate with the mention, “very good.” The green technologies employed help to minimise the consumption of thermal energy, use water in a rational and economical manner, manage waste, reduce greenhouse gas emissions and maintain green spaces. 100 trees and shrubs have been planted in the immediate vicinity making the site a friendly, shady setting.



# The highlights



## The works were launched on 9<sup>th</sup> July 2014

The works on the site of the future Posnania shopping mall were officially launched on 9<sup>th</sup> July 2014. The first stone ceremony gave concrete form to one of the biggest investment projects in commercial real estate in central Europe. In front of numerous guests Michel Gostoli, the president of Eiffage Construction, Fabrice Bansay, general manager of the Apsys Group, and several partners helped the president and founder of Apsys, Maurice Bansay, to perform this ritual that marked the start of the construction.



## Inauguration of the mall on 25<sup>th</sup> October 2016

The die was cast! After 1,400,000 hours work on the structural phase without a single accident, and a building site that lasted 27 months where the work done by the Eiffage Construction teams continued at full speed, it was D-Day! "We did it!" said an emotional Benoît de Ruffray, Eiffage Construction CEO and Maurice Bansay on 25<sup>th</sup> October at the inauguration, attended by Eva Longoria, of this flagship of the economic, social and cultural life of the region.







## A word from the client

“Posnania,  
a Franco-Polish success”



Posnania is Apsys’ new flagship in Poland and it’s an operation that’s been very dear to my heart. It’s a founding project for Apsys as it was one of the very first sites we spotted in Poland when we set up our company. It’s a remarkable achievement because of its size and its innovative character, and it’s also an emblematic project that expresses our values of determination, creativeness and daring.

Posnania is the fruit of twenty years of experience and it offers Polish consumers the very best. In this new-generation shopping mall customers will find an offering of shops and leisure that’s unique in Poland with 305 brands ranging from hypermarket to the Rolex boutique, an architectural setting with spectacular volumes, elegantly-designed 8-metre high facades, premium pioneer services in Europe like the loyal customer lounge, works of art and numerous forms of video and digital entertainment including the highest transparent screen in Europe. All these features make Posnania one of the most emblematic projects in central Europe to date.

Such a project, because of its size and complexity, represented a huge challenge

in all sectors, in particular, construction. Talents had to be combined and we had to work with reliable partners in whom we had total confidence. Eiffage Construction took up the challenge with flying colours. Because of our common history our two companies decided to form a partnership for this project with reciprocal commitment to finish an exceptional operation in record time. Boosted by our complicity and our shared determination, we managed to accomplish something unbelievable together with Michel Gostoli: namely, to build 320,000 sq. m in 27 months! Eiffage Construction was a remarkable partner throughout the whole operation and I would like to say a particular thanks to Michel Gastoli and his teams for the quality of our collaboration and for the work we carried out.

Posnania is a Franco-Polish project, a showcase for the know-how of both our companies, and it has met with great success since it was opened in October. I hope that we will achieve more great operations together!

**Maurice Bansay**  
President and founder of Apsys





## A word from the project manager

“Excellence at the service of the exceptional”



In 2011, at the start of this adventure, Maurice Bansay chose us to lead the project management because of our in-depth knowledge of the world of commerce as well as our double Franco-Polish culture.

Our first task was to adapt the architectural concept imagined by RTKL to make this international project a jewel in the domain of commercial real estate while keeping within reasonable construction costs over a very short space of time.

All those involved in the project contributed to its success by deploying their specific know-how in their own fields:

- Apsys, thanks to its mastery of big commercial projects, was able to come up with a commercial offer that was perfectly suited to the environment by choosing ideal ambiances for its clients in which client service combined with pleasure and excitement on a non-stop basis,
- Eiffage Construction spurred on by Michel Gostoli by the pertinence of his constructive choices, the rigour of his methods and the professionalism of his management pulled off the amazing feat of completing this

exceptional work within the deadlines by calling on what was essentially a local workforce, – BEG Engineering also contributed to its success by the quality of their architectural and technical studies that strictly respected the safety standards imposed on this exceptional work, and by their managerial competences running the project plus the way they fought to keep the costs within the limits of the initial budget.

This successful team of partners, completed by Colas for the roads works and BiV (Guillaume Sadoux) / AND (Ian Hamilton) for the design and choice of materials, proved decisive. “The art of success is knowing how to surround yourself with the best people,” said J.F Kennedy, provided they manage to work together and combine their differences to achieve excellence. And there’s no doubt that this is exactly the result achieved by this really fantastic team.

Bravo to everybody and long live Posnania!

**Hugues Golzio**  
C.E.O BEG Engineering





## A word from the main contractor

### “Building together in another way”



We are known and recognised in France and we deploy our range of competences abroad by stamping the Eiffage signature on the most daring construction projects. We're affirming our experience on the international scene through residential, tertiary sector and commercial planning. 2016 was marked by the completion of a huge venture that boosted the renown of Eiffage Construction – Posnania!

We're very proud of this new shopping temple in Poland, Apsys' spearhead in Central Europe. Posnania gives its visitors a unique shopping experience. With a floor area of 320,000 sq. m and 305 brands it is now one of Europe's biggest shopping malls.

It showcases our know-how by combining human resources, technical prowess and architectural challenge. The tempo of the organisation was set by 14 cranes working flat out to build 1,000 sq. m floor space per day making it an exceptional site. It's just the type of site we like to manage because of the challenge it poses for us due to its size and complexity.

We've been partners with Apsys for many years and we got involved in this major project right from the start. We knew what its president Maurice Bansay – whom I would like to greet here – expected from us, and that our

shared history led to a mutual agreement to clinch the deal. In our role as the main contractor we organised all the stages in on-going consultation with the teams from Apsys and the project manager.

The result is remarkable. Posnania displays multiple facets which make it a real jewel. It's an amazing design with its glass staircase and its Crystal forum. It's an artistic journey in itself thanks to its suspended works of art. And finally it's a place that has a futuristic touch to it because of the many screens dotted all over the site.

We owe this success to all those who invested themselves in these works over 27 months. So thank you and bravo to the French and Polish teams of Eiffage Construction as well as our suppliers and sub-contractors. Thanks to our client Apsys for its trust in us as well as BEG Engineering, the project manager of the operation. I'm convinced that Eiffage Construction has great perspectives in Poland and in other European countries in the years to come to accomplish even more exceptional projects.

**Michel Gostoli**  
President of Eiffage Construction





## Men and know-how



The first stage of any construction operation is the earth works. During July and August 2014 the Eiffage teams were mobilised on a permanent basis to evacuate, clear and level more than 140,000 sq. m of terrain. Some 240,000 cub. m of earth were removed under the supervision of the site managers. The latter kept an eye on things, because here more than anywhere else, the organisation had to be perfectly coordinated to make the extraction and transport equipment cost effective while meeting the deadlines.



240,000 cub. m  
of earth evacuated





The earth moving operations went hand in hand with the consolidation of the retaining walls. The geotechnical engineers got down to work. The excavation enclosure, which extended over 1,500 linear metres, was reinforced by piles in deep soil mixing (DSM) interspersed with continuous flight auger piles (CFA). In the end 2,544 columns stabilised by capping beams acted as the peripheral walls of the works.

The earthworks also included the development of the surroundings with the installation of water pipes, sewage, rain water and telecommunications facilities for the future customers, as well as the construction of a provisional 1-km access road to the site so as not to disrupt existing road traffic.





15,000 cub. m  
of concrete

3,000 tons  
of reinforced steel





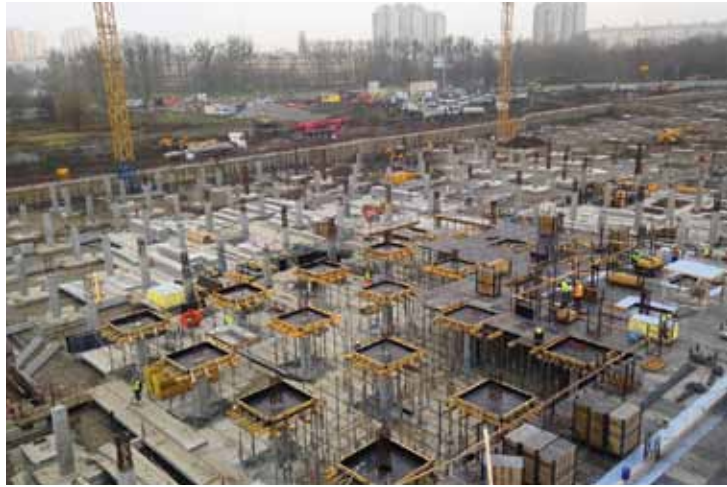
The terrain under the future foundations which will transfer the weight of the superstructure to the ground was reinforced by the injection of almost 8,000 controlled modulus columns. Seen from above this phase of the works is strikingly beautiful with the structures ready to be raised forming lines resembling a huge checkerboard. The first tower cranes were assembled and installed from below, namely: by beginning with their upper section. Although the site was huge there were no delays in the works: an incredible feat for a project of this size.



Formwork is making brisk progress. During this crucial phase of the works respecting the tempo and the correct management of rotations are essential. All the teams involved in the structural works have been mobilised to meet this challenge. But at the end of October, for the first workers who arrive at dawn in this naked forest of steel and concrete, the satisfaction of doing a good job more than compensates for the effort involved.







Appearances can sometimes be misleading. What looks like scattered pieces of a gigantic game of Lego is the result of hundreds of hours of studies carried out by the Eiffage works engineers. Here each piece is in its right place categorised, labelled and then integrated into the construction phase in keeping with scrupulously respected meticulous planning. Together the teams put in place the scaffolding towers, the shoring and the mushroom formworks on which the floor levels will be poured.







The structure which, up to this moment, was vertical now becomes tri-dimensional. The workers position the reinforced cages for the pouring of the floor beams. This turns the site into a major challenge with 14 cranes operating at the same time over 80,000 sq. m. It is a mechanical ballet that has been strictly choreographed by the main contractor thanks to the skills and involvement of the site managers operating on the spot.





At the foot of each post the hollow slabs prefabricated in reinforced concrete, which will be part of the basement shopping area, are waiting to be laid in their final position with the help of a tower crane under the watchful eye of the workers.

75,000 sq. m  
of hollow slabs





## **A sustained tempo and technical challenges**





The lower part of the large-span floors has been made with the help of pre-stressed concrete slabs. The contiguous elements are locked together by connectors and then carefully reinforced. The raw concrete then develops an ephemeral orange-coloured skin. A few days later, after the arrival of the concrete pumps and the installation of the hopper relays, these reinforcements will be covered by the compressed concrete screed.





At the extreme eastern end of this enormous site the 2 silos of the ramps of the future 3,300 space car park look like watch towers in this aerial view.





The circular walls in reinforced concrete have been made with the help of modular formwork in successive levees of 3.60 metres. It's a painstaking task and the reinforcement workers who are experts in ligature show the full range of their talent.





The structural works are now being done at a sustained tempo and require the right kind of organisation for the daily production of almost 1,000 sq. m of floor area. Eiffage Construction is very proud of this performance. The size of the offices and site installations gives an idea of the work involved. It is the hub and the place where the different partners

get together and exchange views during the weekly on-site meetings. These working sessions are a crucial part of any construction project, and they cover all the phases of the site and all the trades, as well as enabling the advancement of the work to be reviewed and the deadlines and specifications to be respected.





15,200  
tons of steel  
reinforcements





In parallel, the first concrete walls arise from the ground. The 13-metre high panels are the equivalent of three stories and are installed for pouring the reinforced concrete walls of the future multiplex cinema. Because of the pressure exerted on the lateral formworks by the fresh concrete, each level of the panel has to be solidly shored up and wedged.



The geometrical curves of what will be the Rotunda, the strategic hub of the future Posnania complex, gradually begin to take shape.





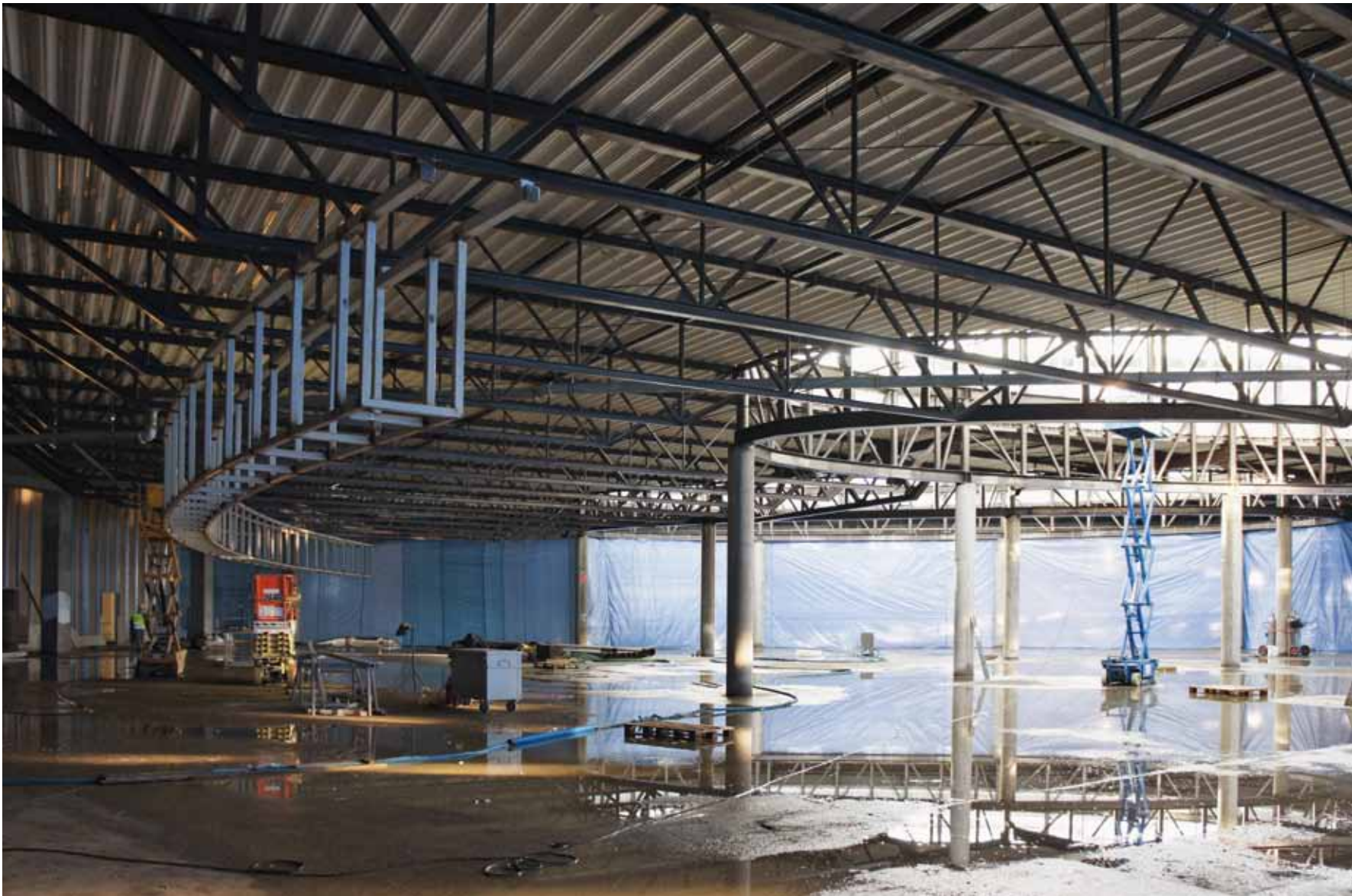
At the end of the site, levels 2 and 3 of the car park are being built with the help of 20,000 sq. m of hollow slabs specially designed to bear the weight of the 3,300 vehicles expected to use the facility. Floor plates and compression slabs are used for level 1.







In August new tradesmen arrive: first of all, expert carpenters in metal frameworks who are there to install and fasten pre-fabricated parts with bolts. Then come the facade specialists who install aluminium profiles and triple glazed walls floor by floor.







The elements ensuring insulation and water tightness of the roof covering as well as the protection of the different buildings from water leaks are meticulously installed. The air becomes suffused with the smell of hot tar, which is then dispersed by the winds.





The installation of heating equipment has to be absolutely spot on. It's the job of the heating engineers and the experts in heating networks who work in a labyrinth of pipe loops with multiple valves, exchangers and pumps with manometers. They have one sole aim – to reduce energy consumption to the minimum!

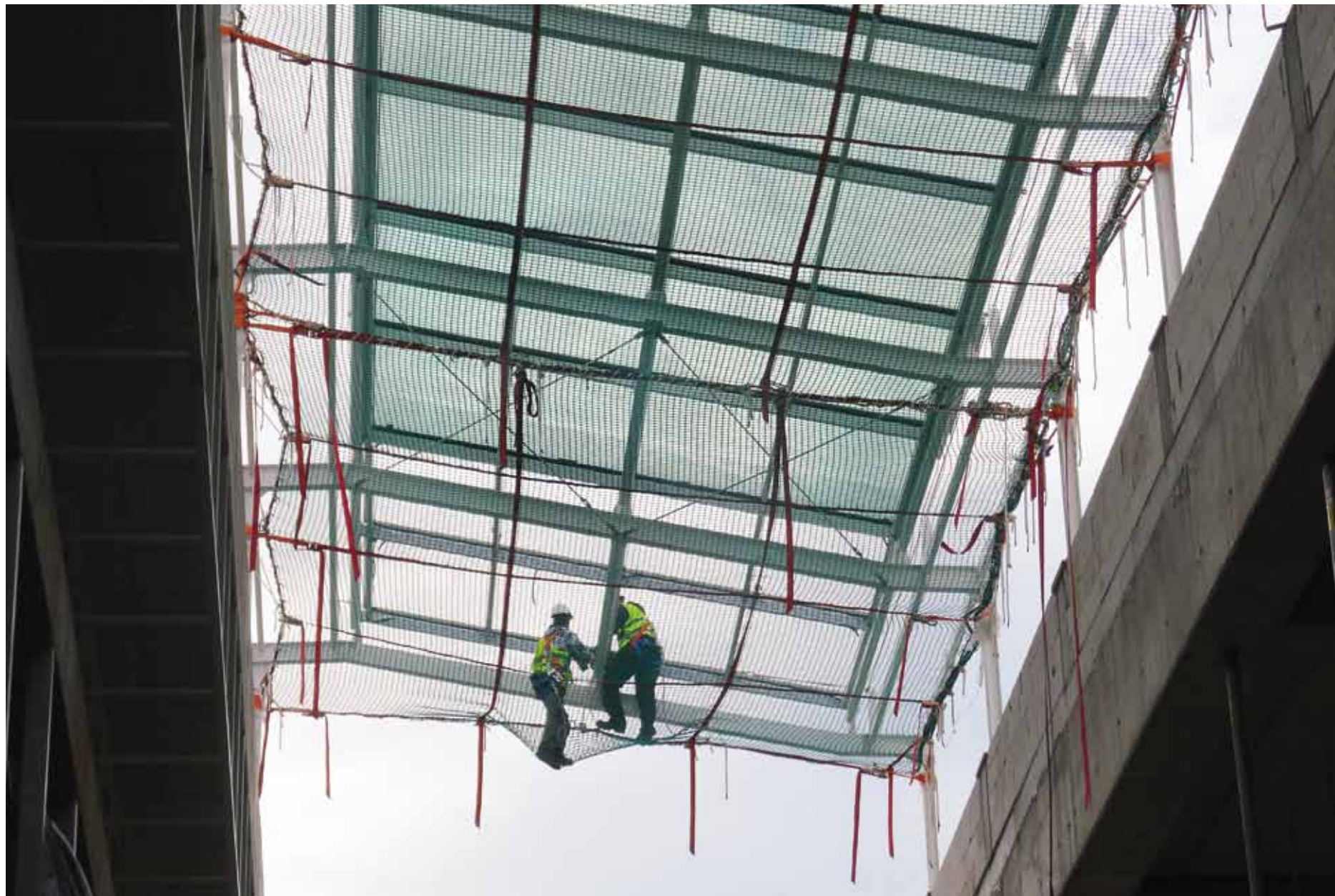






## Space and light





Posnania's architecture is modern, vast and daring, and it prioritizes space and natural light. The installation of the glass roof sections is the high point of the works. These wells of light represent the specific feature of the complex and the trade mark of the project manager. After protective netting has been installed by climbers, the sub-trade companies get down to work.

They call on personnel specialised in work-at-a-height for the installation of frames and glazing. These "tightrope walkers" who are fully focused on their job work at 20 metres above the ground on the 800 linear metres or 5,450 sq. m of these glass roofs. Not a job for anyone who suffers from vertigo!







On the outside, in the late summer of 2016, the facade specialists begin installing metallic cladding and Smilov limestone facings extracted from quarries in the south west of Poland. The signage and lights break up the linearity of the facades due to the play of light and shade, which varies depending on the orientation of the sun. The corner silos are also given special treatment with the installation of a wire mesh punctuated by spiral lights adding a touch of elegance and lightness.





The L-shaped building has three majestic entrances which culminate at over 20 metres grouped around a spacious central mall, the Atrium. On the latter's ceiling, like in the greatest philharmonic concert halls, huge acoustic reflectors in the shape of suspended clouds bring a sense of comfort and intimacy to the visitors to this avant-garde complex.







Design and comfort are also part and parcel of the galleries in which more than 39,000 sq. m of false ceilings have been installed, 12,500 sq. m of which are acoustic.



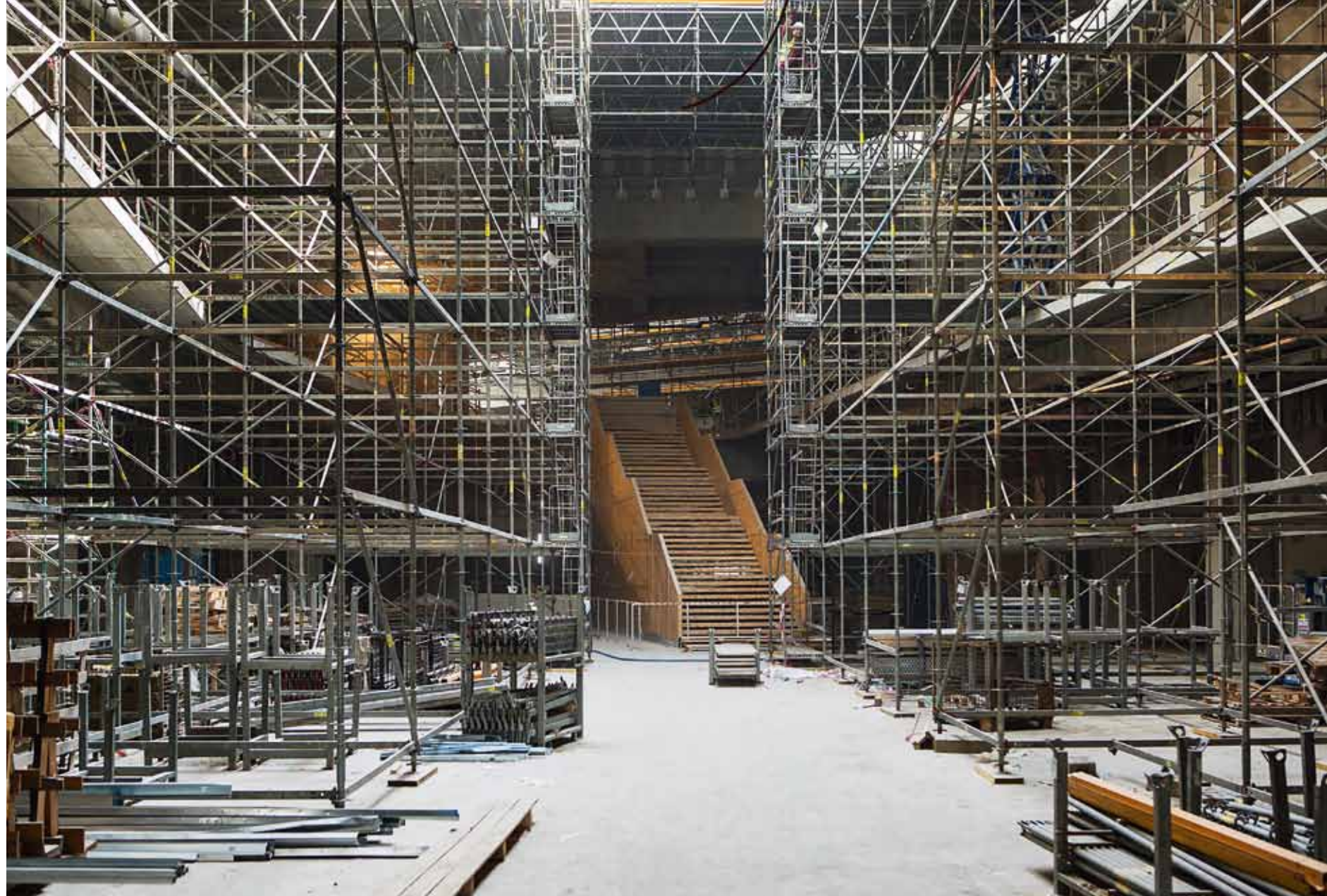




Particular attention has been paid to the many alleys which the shoppers in Posnania will use. A total area of 19,700 sq. m of marble and wood has been meticulously laid by the carpenters and marble craftsmen. Like a city's coat of arms, the Posnania logo is reproduced in black marble on a white background on the floor in the Rotunda and the Atrium.







Further on in the Crystal Forum still clogged with a forest of props, the carpenters are making the wooden protections of what will be a majestic glass staircase, the centrepiece of the complex designed by the English architectural firm, AND, and made by Maciej Gajdzinski, the Polish specialist of the USP Company.





**A futuristic complex,  
the herald of a new era**



**Retail is detail**

Posnania is Apsys’ new flagship in Poland. It is packed with innovations offering a unique living experience of shops and leisure that’s found nowhere else in the country. Spaces conceived as meeting places punctuated with design furniture, giant screens and spectacular volumes are magnified by the 8-metre high windows, double the usual height. In Posnania thanks to the concepts developed by the Apsys Lab innovation unit everything has been designed to combine comfort and excitement, connected energising spaces, collections of works of art, top-class service, entertainment videos and immersive digital experiences, etc.





### A unique commercial offer

Posnania houses just over 300 international and Polish brands, a large number of which are new to Poznan, and to Poland! The Crystal Forum, an exclusive space with a stunning decor, has a premium store in which numerous prestigious brands are on sale. Between purchases visitors can enjoy the comfort and quality of the multiplex with its 8 cinemas equipped with big screens, or perhaps they may prefer to work on their physical form in the fitness zone with its swimming pool and sauna. Children are not forgotten either with an interactive gaming space entirely devoted to them.







### A digital immersion environment

The flagship elements of digital immersion are the 22 interactive Kinect screens and walls that enliven the alleys of Posnania. In the Atrium there is the first giant circular transparent screen in Europe. And in the Rotunda a giant 48-metre long oval screen and a 10-metre high totem dominate. 7 interactive walls near the underground car park entrances create a buzz thanks to eye-catching entertainment. Several other screens, some of which are compatible with augmented reality, are interactive leisure tools and a means for brands to communicate with clients.





### An exceptional range of services

The level of comfort and interaction with the visitors has resulted in the creation of a range of personalised services that accompany the client throughout his/her visit. A "conciergerie" service looks after everything: reservation of tickets or restaurant tables, services such as hands-free purchase or "try and collect" where clothes bought on internet can be tried on the spot, plus the

provision of a personal stylist as well as services for the family. On the Plaza, the outside square at the main entrance to Posnania, stands an iconic work of art as well as recreational water games plus the fountain which, in winter, turns into a skating rink allowing fans of this sport to enjoy it in a unique setting.







### Gourmets' paradise

With 40 cafes and restaurants Posnania offers its customers a wide range of different foods. There's something for every taste ranging from cosy cake shops to traditional restaurants as well as inviting modern cafes and fast food for those in a hurry! The restaurants on the ground floor look onto the fountain

and the gardens. On the first floor there is a smart design restaurant, the Food Court, with 700 seats, a terrace and an intimate space in which to relax to the sound of a piano. The restaurants and the Food Court combine to create the Dining Village whose aim is to become the blue-riband gourmet destination of the region.





**Sustainable development**

Above all else Posnania is a sustainable building and it has received the mention “very good” on the Breeam international certificate. To meet these very strict environmental criteria, the project manager has prioritized the use of eco-materials and installed waste management and pollution reduction systems. In step with what’s at stake in energetic transition, the mall has a free charging point for electric vehicles and encourages visitors to rediscover the pleasures of cycling by providing several bicycle paths and other facilities like bicycle sheds, 2 free repair stations with tools for minor repairs, and a free changing room.







## A cultural commitment





### An artistic journey

The Posnania centre offers visitors an artistic journey full of surprises! In the course of their walk they can admire 13 creations by several international artists: Gwendoline Del Campo, Tzuri Gueta, Rebecca Louise Law, Charles Macaire, Valentine Herrenschmidt and Elise Morin. *Lucie* by David Mesguich, a spectacular sculpture of a little girl drawing a blazing sun, lights up the Plaza. *The Butterfly Effect*, a poetic sculpture in white metal by Warsaw artist NeSpoon,

combines influences from street art, pottery, sculpture, painting and lace. Posnania also participates in Poznan's cultural life. In addition to temporary exhibitions it will host events centered on fashion and culture as well as educational workshops for everybody. The Posnania Bike Festival has already become an unmissable family rendezvous.





### Photo report

Posnania's cultural approach was also expressed during the works with a beautifully sensitive photo report by Polish photographer, Szymon Brodziak. His magnificent black and white photos combine in masterly fashion the monumental aspect of raw concrete and the fragility of the classic dancers in Poznan's Grande Theatre. They were published in a limited edition called *In Posnania*. The artist has won numerous international prizes since he discovered photography in 2006, and he was given an award in the United States for this book at the 2016 International Photography Awards.









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