

# View

Reference magazine  
2015

The new Markthal designed by MVRDV

**The gigantic hybrid dominates  
Rotterdam's downtown cityscape**

New philharmonic hall in Szczecin

**A sculpture of light with a milky  
white facade**

# Thinking for the long term is the key to innovation.

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## On the cover

In addition to market stalls, the new  
Markthal in Rotterdam – which is  
120 meters long, 70 meters wide and  
40 meters high – also contains  
apartments and offices as well as an  
underground parking garage and  
a supermarket.

## Photos

Ossip van Duivenbode (Cover; pages 4, 6–11)  
Ernesta Caviola (pages 4, 18)  
Simon Menges (pages 4, 30–33)  
Sochi Autodrom press office (pages 5, 34–37)  
Gregor Titze (page 5)  
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Robert Gommlich (pages 22–24)  
Werner Huthmacher (page 25)  
Herbert Stolz (page 26)  
neverflash.com (page 27)  
Daniel Sumesgutner, Hamburg (pages 28/29)  
Matthew Shaw (pages 38/39)  
Richard Watzke (page 39)  
Iwan Baan (page 40)  
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Dear readers,

**In places where many people are gathered together each day, there is great demand for robust, durable, low-maintenance, easy-to-clean sanitary facilities that are also simple to operate. Geberit faucets and flushing systems combine experience with state-of-the-art innovations and ensure that even highly frequented sanitary facilities always leave a good impression on visitors.**

The current issue of our reference magazine "View 2015" features two examples of outstanding international construction projects that are equipped with our electronic WC and urinal flush controls due to their high numbers of visitors – namely the philharmonic hall in Szczecin (PL) and HafenCity University Hamburg (DE).

In the articles on the impressive Markthal in Rotterdam (NL), the new Louvre Abu Dhabi and a sustainable residential complex in Singapore, among others, we also highlight the customized and cost-efficient solutions that Geberit offers with its installation systems and installation elements.

The Sanitec Group has been part of Geberit since mid-February. This enables us to offer you a comprehensive range of sanitary products, with know-how and proven system technology "behind the wall" and elegant ceramic appliances, bathroom furniture, bathtubs and shower solutions "in front of the wall" – and all from a single source. Be sure to check out the articles on the Formula One circuit in Sochi and large-scale projects in Hong Kong, among others, where you can take a first look at Geberit's new product range.

I wish you an enjoyable read.



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Christian Buhl, Chief Executive Officer (CEO)



1 ↑ With the new Markthal in Rotterdam, MVRDV has created a superlative architectural icon.

↓ The elementary school in Zugliano is dominated by a cheerful mix of colors.



2



← An abstract sculpture – the new philharmonic hall in Szczecin.

3



4 ↑ The Sochi Autodrom circuit is one of the longest on the Formula One calendar.

1  
A unique hybrid.  
**Trend 6**

2  
Inspired by mountains.  
**Panorama 18**

3  
A glowing light box.  
**Focus Philharmonic Hall 30**

4  
A challenging circuit for high-tech racing machines.  
**Focus Russia 34**

5  
Architectural gem with Viennese flair.  
**Spectrum End user 38**

6  
Mountain herbs in a loam-clad building.  
**Spectrum Technology 40**



← Extensively renovated: the hotel Park Hyatt Vienna.

5



6 ↑ Europe's largest loam building is located in Laufen, near Basel.

## Table of contents

Panorama, Dongdaemun Design Plaza, South Korea	12
Panorama, MICX convention center, Belgium	13
Panorama, "k29" office building, Lithuania	14
Panorama, Louvre Abu Dhabi, United Arab Emirates	15
Panorama, main station, Vienna, Austria	16
Panorama, Fondation Louis Vuitton, France	17
Portrait, For greater water efficiency	20
Focus Germany	22
Spectrum Environment	42
Index of architects/sanitary engineers/plumbers/ Geberit/glossary of certification systems for green buildings	44
Waterways	46

Trend





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#### Markthal, Rotterdam (NL)

Building owner: Provast, The Hague (NL)

Architects: MVRDV, Rotterdam (NL)

Completed: 10/2014

Plumber: Unica Group,

Rotterdam (NL)

#### Geberit know-how

Mapress piping systems

Silent-db20 piping systems

Pluvia roof drainage systems

Duofix installation systems

Actuator plates Sigma01 and Sigma50

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Green building: BREEAM "Excellent"  
certification

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# A unique hybrid

Markthal, Rotterdam, the Netherlands

**The new Markthal in Rotterdam is 120 meters long, 70 meters wide and 40 meters high. Designed by MVRDV, the complex dominates the city center like a type of triumphal arch.**

Following the opening of Rem Koolhaas' high-rise complex De Rotterdam at the end of 2013, another superlative architectural icon has sprung up in the Dutch port city – the new Markthal designed by MVRDV. Like a type of triumphal arch, the mammoth building dominates the city center with dimensions usually only seen in major Asian cities. The structure, which resembles a long house and has already been dubbed "Food Valhalla" by the local press, is 120 meters long, 70 meters wide and 40 meters high.

← The interior of the hall is clad with 4,500 aluminum panels, each measuring 1.52 by 1.52 meters.

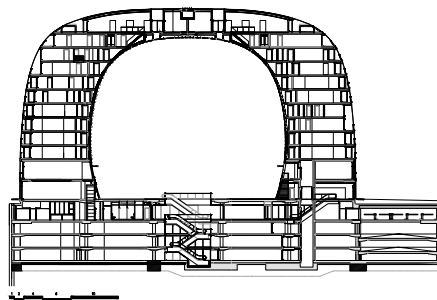




↑ The new Markthal dominates Rotterdam's cityscape like a triumphal arch.

**Gross floor area of 100,000 square meters**

Ten years ago, the Rotterdam-based architecture firm MVRDV won the competition with a hybrid design that is unique to date. Before the market hall was built, the property at the Blaak metro station contained a small, flat school building and a garage. The initial plan involved two long apartment buildings and a market hall for those living locally in the Laurenskwartier. During the investor competition, the architects at MVRDV and the project developer Provast came up with the idea of combining the two construction projects into one complex.



↑ Section on a scale of 1:750

This resulted in a building comprising a 40-meter-wide indoor market flanked by two parallel, 120-meter-long wings featuring eleven upper floors. Measuring 4,000 square meters, the market hall contains around 100 stands that are protected from the elements by a twelve-story shell featuring 126 freehold and 102 rental apartments as well as 24 penthouses and office space. Thanks to the various apartment sizes ranging from two to five rooms, the building caters to single persons and large families alike. A four-story underground parking garage with 1,200 parking spaces was also built under the market hall. The entire com-





↑ A view from an apartment looking down at the hustle and bustle in the hall below.

← The narrow sides of the hall were closed off with glazing on a steel rope grid structure with a maximum permissible deformation by wind load of 70 centimeters.

plex has a total gross floor area of 100,000 square meters.

As the wings rise, they incline inwards, meeting at the top floor and turning the building into a monumental archway. The greatest challenge for the architects was arranging the apartment floor plans so that the rooms that require daylight are on the exterior of the building. Service rooms and corridors are arranged facing the hall. However, these areas also have windows that give onlookers a view of the hustle and bustle in the market hall down below. At the top of the building, a small glass floor in the

atriums of the uppermost penthouse apartments allows the residents to float at a dizzying height above the hall.

#### Wild horn of plenty

Visitors can access the four underground levels – which contain the underground parking garage, a large supermarket and other facilities – via the stairs and escalators in the atrium in the center of the hall. However, the biggest attraction is the stunning artwork entitled “Hoorn des Overvloeds” (English: horn of plenty) covering the entire interior surface of the hall. Designed by the two local artists Arno Coenen

and Iris Roskam, the photo-realistic 3-D simulation on 4,500 aluminum panels features flowers, grain, cows, fish, fruit and vegetables that appear to fly randomly above the arch and rain down on the visitors to the market. ←

→ [www.markthal.nl](http://www.markthal.nl)



Interview with Piet Looij, Project Manager at Unica Installatietechniek

# The right sanitary technology for an exceptional project

The Markthal in Rotterdam is unique worldwide in that people also live above this gigantic hall. What installation-related challenges did you face with this building?

**On the one hand, the speed at which it was built. Each week saw eight apartments spring up on both sides of the market hall – resulting in ten floors stacked on top of one another within three months. Among other things, we took this into consideration when installing the building drainage system in order to ensure that the water really can drain away. This was not easy to manage from a sanitary-technology perspective.**

The hall is built in the shape of a tunnel. Did this type of architecture impose special requirements?

**Yes. Due to the shape of the building, we had to lay the supply and discharge pipes on the upper floors in steps, so to speak. This presented us with a major problem, particularly when installing the discharge stacks – as we had to sometimes lay the pipes over one and a half meters in a horizontal direction. In order to still be able to channel enough wastewater through the pipes despite this issue, we had to install branch ventilation pipes, among other things. In these cases, we relied on the expertise of Geberit to find the right solutions.**

Which Geberit products were used here?

**To ensure that the building drainage works perfectly, we opted for the Silent-**

**db20 piping system from Geberit. With this product, we can prevent noise emissions in the discharge pipes – despite the building being such a large structure. The ducts in which the technical building systems are located are also very narrow. This could have compounded the noise issue in the piping systems. We opted for the Pluvia roof drainage system due to the curved roof structure. Pluvia requires smaller pipe dimensions and fewer discharge stacks to collect the rainwater. This is a major advantage when it comes to structures with architecture as complex as the Markthal. ←**



← Geberit Pluvia roof drainage system  
→ Escalators bring visitors from the hall to the underground levels, where a supermarket and other facilities are located.





↑ A sparkling sculpture at night: the Dongdaemun Design Plaza (DDP) in Seoul designed by Zaha Hadid.

# A sculptural spaceship

Dongdaemun Design Plaza (DDP),  
Seoul, South Korea

The Dongdaemun district in Seoul is predominantly known for its 24-hour shopping area. A new and unusual tourist attraction has now been added – the Dongdaemun Design Plaza (DDP) designed by Zaha Hadid. The sculptural, organically curved complex looks like a spaceship that has become stranded right in the heart of the South Korean metropolis. The 87,000-square-meter building is made up of eight floors – four above ground level and four set below the plaza – and contains convention halls, exhibition areas, a design museum and a host of other facilities.

The “DDP,” which is expected to evolve into the new fashion center for the whole of East

Asia, features a “Design Lab & Education Center” containing lecture rooms and archives, as well as a library and labs for developing materials used in the fashion industry. An exhibition hall measuring some 1,000 square meters is also planned for fashion shows and presenting the latest trends from the design industry. The outer shell of the “DDP” is made up of over 45,000 aluminum panels of varying sizes and curvatures developed using state-of-the-art 3-D technology. The backlit facade features tiny perforations that allow the complex to transform from a compact entity by day into a sparkling sculpture by night. ←



↑ The “DDP” is expected to evolve into the new fashion center for the whole of East Asia.

## Dongdaemun Design Plaza, Seoul (KR)

Building owner: Seoul Metropolitan Government, Seoul (KR)

Architects: Zaha Hadid Architects, London (UK), in cooperation with Samoo Architects & Engineers, Seoul (KR)

Completed: 3/2014

Plumbers: NNH system Co Ltd; YOUONE engineering, Seoul (KR)

Geberit know-how

Pluvia roof drainage systems

Duofix installation systems

Flushing systems

# A dramatic appearance

Mons International Congress Xperience (MICX),  
Mons, Belgium

**Mons International Congress Xperience (MICX), Mons (BE)**

Building owner: City of Mons (BE)  
Architects: Studio Libeskind, New York (USA),  
in collaboration with  
H2A Architecte & Associés, Mons (BE)  
Opened: 1/2015  
Plumber: Energys, Awans (BE)

**Geberit know-how**

PE-HD piping systems  
Pluvia roof drainage systems  
Mepla piping systems

Five new museums, a concert hall, a train station and a convention center were built in the Belgian city of Mons as part of the 2015 Capital of Culture initiative. Linking contemporary and historical architecture was the predominant focus when it came to the overall planning. Daniel Libeskind was commissioned with constructing the convention center and designed a complex that resembles a stranded ship. With its dramatic appearance, local materials and flexible range of possible uses, the Mons International Congress Xperience (MICX) fits in well with the local context.

In addition to technical features, Libeskind's sustainability concept also features a regional focus, with the building's forecourt flecked with diagonal bands of Belgian blue-stone. The architect also uses this characteristic design element in the entrance hall, the flooring and the ceiling. The "MICX" has a total usable floor space of 12,500 square meters and houses a range of facilities, including three auditoriums, a multi-purpose hall and 16 smaller conference rooms. ←



↑ The new convention center in Mons designed by Daniel Libeskind resembles a stranded ship.

← The center has three auditoriums, a multi-purpose hall and 16 smaller conference rooms.

# An oblique glass ellipse

“k29,” Vilnius, Lithuania



## k29, Vilnius (LT)

Building owner: Real Estate Investment Fund, Lords LB Baltic Fund II, Vilnius (LT)

Architects: PLH Arkitekter, Copenhagen (DK), and Archinova, Vilnius (LT)

Completed: autumn 2015

Plumber: UAB Caverion Lietuva, Vilnius (LT)

## Geberit know-how

Pluvia roof drainage systems  
Duofix installation systems

Green building: BREEAM

↑ In “k29,” the ring-shaped office space for the some 1,800 staff surrounds a large atrium area.

Tomas Jasinevičius, Head of Project Management, UAB Caverion Lietuva:

**“We opted for the Pluvia roof drainage system from Geberit for this complex because of the roof’s very special design and large curvature. Thanks to Pluvia, we were able to collect a large amount of rainwater at a single place and drain it away using only a few roof outlets – despite the complex roof shape.”**

Vilnius has the most homogeneous baroque architecture and the largest old town in Eastern Europe – two of the reasons why the Unesco World Heritage Site is also known as “Athens of the North.” However, Vilnius has now also become famous for its modern, forward-looking architecture, one of the most recent examples being the new office complex “k29” located only minutes away from the historic old town. The fully glazed green building was designed by the Danish architecture firm PLH Arkitekter and the Vilnius-based architects from Archinova.

The striking building has an elliptic shape and an obliquely sloping roof. At its highest point, it has eight stories. The ring-shaped

office space, where some 1,800 staff will work, surrounds a large atrium area whose large glass roof ensures the inner rooms are also provided with ample light. When designing “k29,” the architects placed great emphasis on the environmental friendliness of the building. They designed the office levels so that they can be flexibly adapted to the individual needs of the respective tenants. Bright colors and natural, durable materials create a friendly, pleasant atmosphere in the rooms. In addition to protecting against noise pollution, the double facade also significantly reduces the energy required to heat, ventilate and cool the building. The glass complex is also surrounded by a two-hectare park for rest and recreation. ←



← A large dome with a diameter of 180 meters covers the complex.  
↓ With his design for the Louvre Abu Dhabi, Jean Nouvel evokes the atmosphere of a medina.

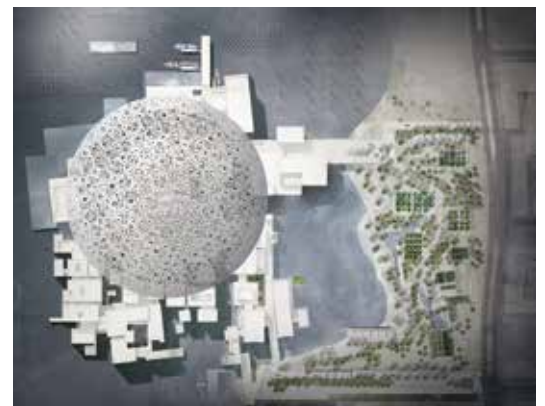
# Medina under a giant dome

## The Louvre Abu Dhabi, United Arab Emirates

Located on the 27-square-kilometer Saadiyat Island close to downtown Abu Dhabi, the new Louvre will be the first universal museum in the Arab world. The capital of the United Arab Emirates has been planning this building since 2007 and is being supported by the largest art museum in the world – the Louvre in Paris – which will not only be lending its Arab counterpart its name but also supporting it with art loans and in building up its collection.

The spectacular museum building was designed by the French Pritzker Prize winner

Jean Nouvel. An extremely flat giant dome with a diameter of 180 meters covers the complex, which is surrounded by the sea. Perforated throughout, the dome aims to create similar lighting conditions to that of an oriental bazaar where the alleys are covered by raffia mats. Under the roof are various large cubes that house the museum's exhibition spaces. With his design, Nouvel has created a medina that is transformed into a dream from One Thousand and One Nights by the light seeping through the gigantic dome. ←



### The Louvre Abu Dhabi, (UAE)

Building owner: Tourism Development & Investment Company (TDIC), Abu Dhabi (UAE)  
Architects: Ateliers Jean Nouvel, Paris (FR)  
Opening: December 2015  
Sanitary engineer: Buro Happold Engineers, Limited, Dubai (UAE)  
Plumber: Al Habtoor Leighton Specon LLC, Drake & Scull Intl., Abu Dhabi (UAE)

### Geberit know-how

Duofix installation systems  
Sigma concealed cisterns 12 cm  
Omega concealed cisterns  
Actuator plates Sigma20  
Remote flush actuators type 70 for dual flush

Green building: Estidama-nominated



↑ A folded diamond-shaped roof extends over the platforms.

# A folded diamond-shaped roof

Main station, Vienna, Austria

Following an extensive planning phase, one of Europe's largest construction projects has been completed – the new main station in Vienna with a large shopping mall on the underground level, the neighboring "BahnhofCity" and the headquarters of the Austrian Federal Railways (ÖBB). Featuring the architects Albert Wimmer, Ernst Hoffmann and Theo Hotz, the consortium "Vienna Team" was responsible for building the railway station, having won the competition for the master plan back in 2004. "Vienna's new main station was designed as a complex connecting element, linking the Eastern Railway, Southern Railway and Western Railway, providing connections right across Europe and linking the areas to the north and south of the station," explains Albert Wimmer, describing the concept.

A striking, massive, diamond-shaped roof structure composed of five separate elements extends over the platforms. Offset from one another, the roof surfaces meander up and down, with glass diamonds forming skylights in the center that provide lighting and ventilation. Looking down on the roof from above, it condenses towards the north-west to form a head-shaped structure fronted by a narrow snout, while it dissipates towards the east to straight roofs with small trapezoidal tails. ←

## Main station, Vienna (AT)

Building owner: ÖBB-Immobilienmanagement, Vienna (AT)  
 Architect: Atelier Albert Wimmer/Ernst Hoffmann, Vienna (AT)/  
 Theo Hotz, Zurich (CH)  
 Opened: 10/2014  
 Plumber: Ortner GmbH, Vienna (AT)

### Geberit know-how

Pluvia roof drainage systems  
 PE-HD piping systems



← Glass diamonds form skylights that provide lighting and ventilation.



# A twelve-master made of glass

Fondation d'entreprise Louis Vuitton, Paris, France

Fondation d'entreprise Louis Vuitton, Paris (FR)

Building owner: Bernard Arnault, Paris (FR)

Architect: Gehry Partners, Los Angeles (USA)

Opened: 10/2014

Plumber: Groupe Balas, Saint-Ouen Cedex (FR)

**Geberit know-how**

Duofix installation systems

Actuator plates Sigma50



↑ The giant sails are made of 3,584 laminated glass panels.

With the Fondation d'entreprise Louis Vuitton, the Californian architect Frank O. Gehry has created a new landmark on the Parisian cityscape. The complex, deconstructivist building comprises twelve impressive giant sails composed of 3,584 laminated glass panels. Gehry's new flagship was commissioned by Bernard Arnault, Chairman and CEO of the luxury

goods conglomerate LVMH, who wants to present his own art collection and other items across 3,500 square meters of exhibition space. The edifice also features an auditorium for concerts and events as well as eleven galleries and several observation decks. Gehry achieves his signature complexity vis-à-vis the room design by incorporating various views and vistas, bal-

conies, mezzanines and winding bearing structures as well as a glass tepee structure, the latter of which houses the restaurant. Along the exterior of the complex, a "promenade architecturale" guides visitors over stairways to four terraces that offer a spectacular view of the Parisian skyline. ←

# Inspired by mountains

Elementary school, Zugliano, Italy



↑ Life inside the elementary school in Zugliano is dominated by a cheerful, colorful mix of orange, blue and pink.

Located north of Vicenza is Zugliano, a town embedded in an alpine landscape featuring the peaks of Spitz, Toraro, Campomolon and Monte Cimone. These surroundings inspired the architects at 5+1AA with their design for the new elementary school on the outskirts of the town. Indeed, from a distance, the only part of the building you can initially see is its cantilevered gray roofs that rise skyward like hills. However, once you enter the schoolyard, the gray exterior makes way for a cheerful, colorful mix of orange, blue and pink.

As a contrast to the complex geometry of the building shell, the architects designed a straightforward floor plan, with two L-shaped wings forming a square around the inner courtyard. One wing contains the classrooms and the other contains a sports hall, administration facilities and the teachers' lounge. The rooms are accessed via a generously glazed corridor that runs along the inner courtyard. This corridor is also used as a place to play in bad weather and during the short breaks. ←

## Elementary school, Zugliano (IT)

Building owner: Zugliano Town Council, Zugliano (IT)

Architects: 5+1AA S.R.L., Milan (IT)

Opened: spring 2014

Plumber: Ai Engineering S.R.L., Turin (IT)

### Geberit know-how

Duofix installation systems

Actuator plates Sigma01

Silent-db20 piping systems



↑ The architects arranged two L-shaped wings around the inner courtyard.

# Quality pipes – made in Europe

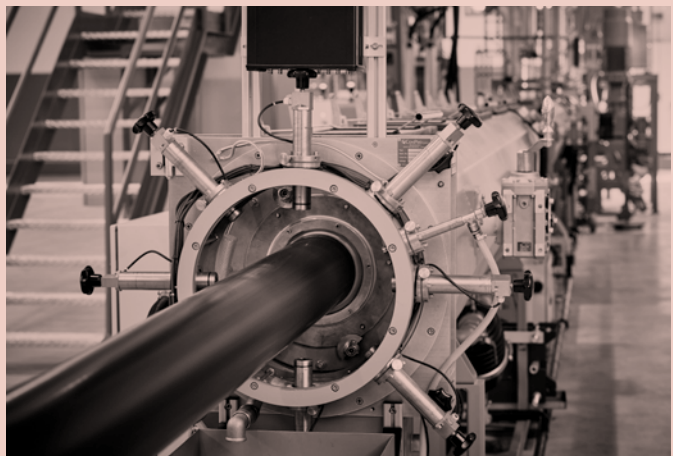
The Silent-PP piping system is experiencing high growth rates. Therefore the plant in Villadose, Italy, was recently expanded. With a new, fully automated production line, Geberit is setting new standards in pipe production.

The launch of Silent-PP in 2009 saw Geberit introduce its first plug-in and sound-absorbing piping system for building drainage. Within just five years, production capacities had to be expanded in order to meet the high demand for the Silent-PP pipes: an additional, modern production hall was opened in the Villadose plant in the north of Italy, as well as a new outside storage area, greatly improving the efficiency of logistics processes. This site – where Geberit’s entire range of building drainage pipes is manufactured – is therefore well equipped for further growth.

Compared to the sector as a whole, the Villadose plant performs excellently in the area of energy efficiency. The newly installed, environmentally friendly cooling system reduces energy consumption by 50%. The production and office buildings are heated primarily using waste heat from the compressor units, while state-of-the-art electric motors in the production lines also help to save energy. Furthermore, all scrap materials from production are recycled.



The environmentally friendly cooling system reduces energy consumption by 50%.



In order to meet the high demand for the Silent-PP pipes, production capacities in the Villadose plant had to be expanded.

## Efficient production



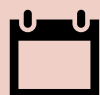
**358**  
products



**26,000**  
metric tons of pipes per year



**24-**  
hour production



**340**  
days



Along with the state-of-the-art production line, a new outside storage area was also put into operation.

# For greater water efficiency

The Hong-Kong-based company **Jebsen Building Products** sells high-quality products for the construction sector, including products from the new **Geberit brand Twyford**. In this interview, Managing Director **Vincent So** explains the importance of sanitary installations when it comes to major projects, the role that product design plays and the advantages that the brand **Twyford** offers with respect to sustainability standards.



↑ Vincent So, Managing Director of Jebsen Building Products in Hong Kong.

What services does your company, Jebsen Building Products, specialize in?  
**At Jebsen Building Products, we specialize in the sourcing, marketing and distribution of high-quality finishing and decorative building materials while delivering technical support services to the building industry in Hong Kong, Macau and mainland China. Through our strong partnerships with overseas manufacturers, we are committed to sourcing premium brands around the globe and bringing our local customers the professional one-stop solutions that meet their project requirements.**

Who are your clients? Are they mainly institutional clients?  
**We have been supplying quality Twyford sanitary wares to some of the most prestigious buildings in Hong Kong. We have earned a stellar reputation and carved a niche for ourself in the area of professional and green sanitary products to institutional clients from government, healthcare, as well as education sector.**

How important is the bathroom in the major projects you carry out?  
**In recent years, public washroom is changing its original identity from the**

**hidden-away utility areas to zones that stress physical wellness and outlets for technology promoting hygiene and water efficiency. For our major projects in healthcare sector, the design and selection of sanitary ware have played even a more important role in making the hospital a safer place from bacteria contamination and protecting the health of medical professional and patients.**

How much importance do building owners in Hong Kong attach to bathroom furnishings and fittings nowadays? Has the bathroom become more important?  
**The rising trend of the increasing application of green building rating system in the local market, such as LEED and BEAM Plus, in addition to the government policy for promoting green building initiatives are driving the building owners and architects to look for sanitary ware that helps contribute green credits or achieve environment targets to their projects; also making the sanitary wares and fittings equipped with water efficiency more important to the market.**

What role does product design play in the bathroom?  
**Architects and designers are always looking for innovative design of sanitary ware, in terms of function and style.**

**For example, the rimless WCs from Twyford and Keramag, initially developed to meet the stringent demands of the healthcare facilities, are welcomed by other market sectors because of its true rimless design bringing cleanliness and easy regular cleaning to the washroom. In addition, the unique Flushwise dual flush technology, which can achieve 4/2.6 l, also sets our sanitary solution apart from the rest due to its accomplishment in terms of water efficiency.**

What role does comfort play in the bathroom? Is comfort an important aspect nowadays when it comes to the interior work?  
**For the government, healthcare and education sector, comfort is one of the considering factors for public washroom.**

What specific work did your company carry out in the current projects, the Fire Services Training Center and the West Kowloon Law Courts?  
**We supply the complete sanitary ware solution to all washrooms in the above projects, plus architectural and specifications consulting services in the design stage, including code compliance review and coordination with building**



↑ A look inside a washroom at Kellett School  
 ← Kellett School – the British International School in Hong Kong – was equipped with sanitary products from Twyford.

→ Jepsen Building Products also supplied the ceramic appliances for the new hospital building at TKO Hospital in Hong Kong.



↑ The outpatient section of TKO Hospital  
 ← Jepsen Building Products supplied a range of different products for North Lantau Hospital, including toilets, washbasins and urinals from Twyford.



**Twyford**

When Thomas William Twyford introduced the first free-standing ceramic toilet back in 1883, he was inundated with orders. Today, Twyford is one of the leading sanitary brands in Great Britain and Ireland and is also the world's only bathroom manufacturing company to have been awarded the Royal Warrant.

Twyford has been part of the Geberit Group since February 2015.

system ensuring the right product is specified for the right application.

What products are you referring to?  
**We supply a combination of different series of Twyford's WC, basin, urinal, cleaner sink and related accessories to various bathroom areas of the projects.**

What benefits do the brand Twyford bring to your projects?  
**Twyford's reliable quality performance, as well as products in full compliance**

with international standards and meet the water efficiency requirement under the BEAM Plus certification, helped us secure many key projects from government, healthcare and education sector. In recent years, we had delivered the complete sanitary ware solution to newly built hospitals and international schools. ←



Focus Germany

# A funky "H"

HafenCity University, Hamburg, Germany





↑ The interior features light rooms in exposed concrete.

← The striking university building was built right on the Elbe.

#### Hafencity University, Hamburg (DE)

Building owner: Hamburg Ministry of Science and Research, Hamburg (DE)

Architects: Code Unique Architekten, Dresden (DE)

Completed: 4/2014

Sanitary engineers: Ingenieurgesellschaft Ridder & Meyn GmbH, Hamburg (DE)

Plumber: Horst Jeske, Warin (DE); Sunnus GmbH, Hamburg (DE)

#### Geberit know-how

Duofix installation systems

Duofix elements for WCs with Sigma concealed cisterns 12 cm

Duofix elements for support handles

Duofix elements for urinals

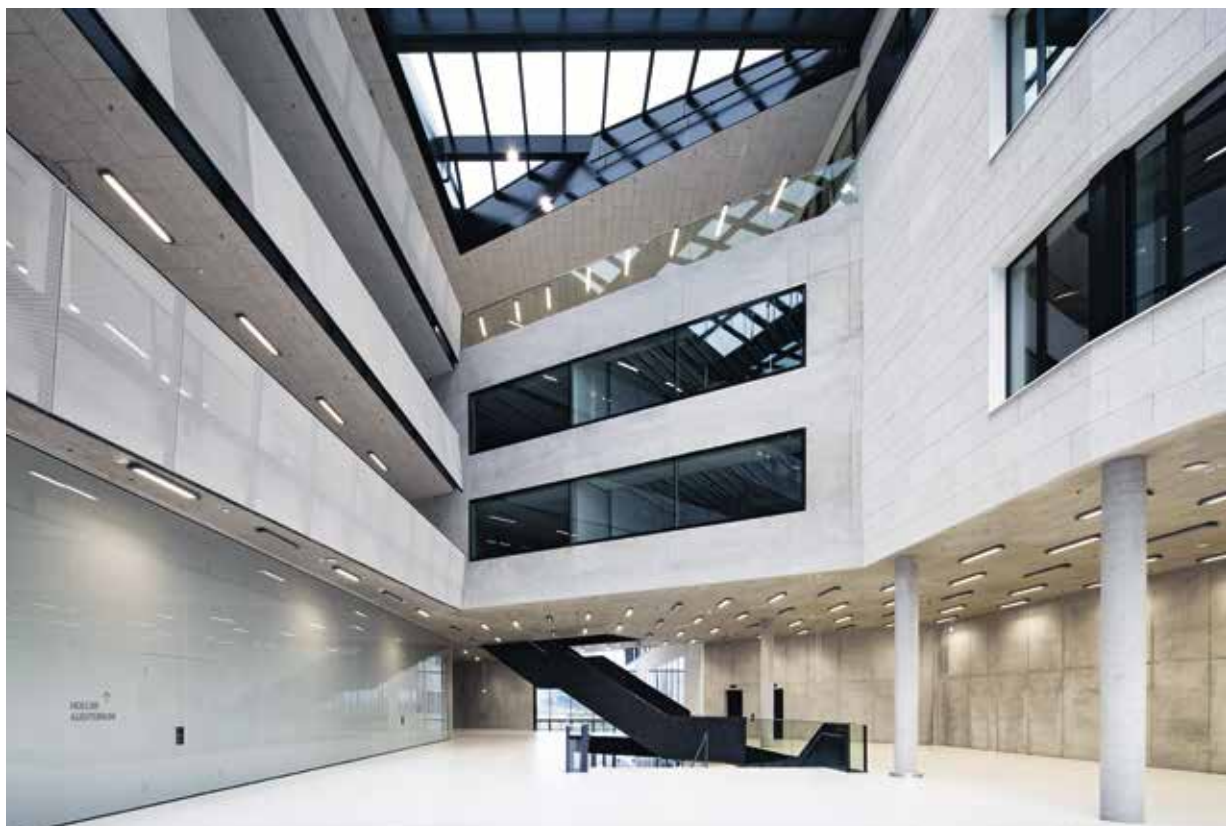
Electronic WC and urinal flush controls

Pneumatic urinal flush controls

Mapress Carbon Steel piping systems

Actuator plates Mambo

Green building: HafenCity "gold" certification



↑ The building-high atrium forms the communicative heart of the university complex.

**Thanks to its prominent location, the new HafenCity University Hamburg has an iconic effect within the urban landscape.**

The HafenCity region in Hamburg is continually growing and has been enriched by the addition of a new, centrally located university building since last year. The Architecture, Civil Engineering, and Geomatics faculties – which had previously been spread across different locations – and the Urban Development/Urban Planning course specialization were brought together at the "University of the Built Environment and Metropolitan Development." Following a two-stage architectural competition, the Dresden-based architecture firm Code

Unique was given the nod to construct the new building.

#### **An iconic effect within the urban landscape**

The striking building, which is situated right on the Elbe at the mouth of Magdeburger Hafen harbor close to the Überseequartier district, also meets high ecological standards. Thanks to its prominent location, the complex has an iconic effect within the urban landscape. Around 2,000 students study here, supported by 200 lecturers and



## Focus Germany

professors. The new complex not only looks like a funky "H" in terms of its shape – the connecting line between the north and the south wing is implemented as a building-high atrium, thus also serving as the communicative heart of the building. The atrium is the central hub from where the auditoriums and seminar rooms are accessed.

The architects designed the interior with light rooms in exposed concrete and bright and dark contrasts. The ground floor features lecture halls, a canteen, a café and a library and has two entrances – one leading to the subway station and the other to the Überseequartier district. The upper floors contain the student rooms. The north wing houses the laboratory facilities. The south wing faces the port and serves as a place for creative debates and discussions, with the upper floors containing the offices for the working and research groups.

A compact yet relaxed floor plan structure was created by organizing the complex into two sections. With its transparent facade and many interesting views, the architects created a comfortable university complex for students and lecturers alike. ←

→ Thanks to its prominent location, HafenCity University Hamburg has an iconic effect within the urban landscape.

↓ Exposed concrete and bright and dark contrasts dominate the interior.



→ Geberit actuator plate Sigma10



### Geberit sanitary systems for semi-public and public facilities

Whether retirement homes, restaurants, clinics or university buildings such as HafenCity University Hamburg, the list of places where semi-public and public sanitary installations are used is long. However, high user frequency presents special challenges. Wherever the masses stream through the door each day, there is great demand for robust, durable, low-maintenance, easy-to-clean sanitary facilities that are also simple to operate and look good. Geberit products provide precisely the solutions sought after in semi-public and public areas. Thanks to their high degree of reliability and durability, they ensure that highly frequented sanitary facilities operate reliably.

At HafenCity University Hamburg, touchless urinal flush controls offer users better hygiene, ensuring that a cleanly flushed urinal awaits them at all times. Geberit offers innovative, well-coordinated and tested solutions that guarantee permanent functional reliability, attractive design and high economic efficiency. The WC flush controls ensure the reliable actuation of a flush after every use. In this way, the WC always remains hygienically fresh, even if it is not used for some time.



# A place of emotional healing

New psychiatry building,  
Dietrich-Bonhoeffer-Klinikum,  
Neubrandenburg, Germany



↑ The facade of the new clinic building is structured by closed and glazed elements.

**With the new clinic building, the Berlin-based architecture firm Ludes has designed a medically advanced, patient-oriented facility.**

The Dietrich-Bonhoeffer-Klinikum is located east of downtown Neubrandenburg. It is a specialist hospital responsible for the region and also serves as an academic teaching hospital of the Ernst Moritz Arndt University of Greifswald. The Clinic for Psy-

chiatry and Psychotherapy had previously not been located on the hospital campus. With the new building, there are now 72 inpatient and 18 semi-residential treatment places for the some 160,000 residents of Neubrandenburg and the region.

The clinic building was designed by the Berlin-based architecture firm Ludes Generalplaner, who won the architectural competition for this project. They designed a medically advanced, patient-oriented facility that also laid the foundations for its cost-efficient operation. The three-story building was erected between the parking garage and the Clinic for Geriatric Rehabilitation and integrated into the campus's existing path and road system without changing the network in its entirety.

The facade of the complex is structured by a vertical arrangement of closed and glazed elements. The two upper floors feature insulating glass and opaque panels in the area where the walls meet. The facade of the ground floor, central foyer and the facades facing the inner courtyards feature a post-and-beam structure, creating a warm and friendly ambiance dominated by daylight in the corridors and the adjacent day rooms. The rooms in the clinic building feature light and warm tones as well as bright wooden elements made of oak, maple and other timbers, which underline the pleasant atmosphere. Two inner courtyards ensure that the patients can also enjoy the outdoors in a safe environment. ←

**New psychiatry building,  
Dietrich-Bonhoeffer-Klinikum,  
Neubrandenburg (DE)**

**Building owner: Diakonie Klinikum Dietrich Bonhoeffer GmbH,  
Neubrandenburg (DE)**

**Architects: Ludes Generalplaner GmbH, Berlin (DE)**

**Opened: 2014**

**Sanitary engineers: ibm haustechnik manjah GmbH,  
Neubrandenburg (DE)**

**Plumber: Volgmann GmbH,  
Neubrandenburg (DE)**

**Geberit know-how**

**Keramag Vitalis washbasins  
and wall-hung WCs, barrier-free**

**Keramag Renova Nr. 1  
wall-hung WCs, washbasins  
and urinals**

**Keramag Coppelia shelves**

# A throwback to the seventies

"Klenze 27," student housing complex, Regensburg, Germany

The student residence built in the 1970s has undergone a comprehensive renovation and redesign. Today, the 240 apartments offer modern, comfortable living environments and meet contemporary sustainability standards.



↑ Together with the balconies, the differently sized, geometrically arranged decorative beam structures represent an architectural highlight.

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**Klenze 27, student housing complex,  
Regensburg (DE)**

Building owner: Imago K27 GmbH,  
Neutraubling (DE)

Architects: Architekturbüro Tuscher,  
Regensburg (DE)

Completed: 2015

Sanitary engineers: TGA Projektierung GmbH,  
Pentling (DE)

Plumber: Schmidbauer GmbH, Schorndorf (DE)

**Geberit know-how**

Geberit Duofix installation systems

Geberit Silent-db20 piping systems

Geberit Mapress Carbon Steel piping systems

Keramag Renova Nr. 1 Plan wall-hung WCs,

WC seats with lid and washbasins



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Green building: KfW Efficiency House 70

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↑ Despite their small size,  
the bathrooms appear spacious  
thanks to the clever layout.

← The 29-square-meter one-room  
apartments have a functional  
floor plan and friendly interior.

In 1972, the apartment building on Klenze-strasse in Regensburg was designed as a student residence. As it no longer met today's standards in terms of sound insulation, fire protection, sustainability and living comfort, the Regensburg-based architecture firm Architekturbüro Tuscher was commissioned to renovate and redesign the complex.

Originally featuring 209 residential units, this figure was expanded to 240 apartments. The greatest challenge for the architects was the low room height predetermined by the reinforced concrete building structure. The narrow supply ducts also didn't allow for a great deal of flexibility. Various measures were implemented to create the additionally required square meterage, including converting the canteen on the ground floor and the swimming pool with sauna on the top floor into living space.

In addition, new stories were added to the building and the terracing of the upper floors was compensated by superstructures, which also resulted in the overall building structure appearing more compact.

The renovated and redesigned building is home to 29-square-meter, one-room apartments that meet today's living standards thanks to their functional floor plan and bright, friendly interior design. The open-plan kitchenettes branch off from the living space, creating a large living and working area. Despite their small size, the bathrooms appear spacious thanks to the clever layout and the glass-partitioned floor-even showers. The old, partially suspended balconies were also integrated into the apartments and new loggias placed in front of the facade. Together with differently sized, geometrically arranged decorative

beam structures, the balconies represent an architectural highlight and jazz up the facade while also resulting in better lighting in the apartments.

The dominant color used in the interior and exterior design is white and – in something of a throwback to the seventies – sprinklings of orange. For example, there are orange frames in front of the entrance to the building and the entrances to the apartments. The handrails and the numbering of the floors are orange, and the bathrooms feature small recesses with orange mosaics. As a result, the formerly unassuming gray apartment building has been converted into a modern, attractive student residence that also meets the requirements of the environmental label KfW Efficiency House 70 with regard to energy consumption. ←

# New architecture for an inner-city store

Ikea store, Hamburg-Altona, Germany

**The new Ikea store in Hamburg's Altona district is not a blue and yellow corrugated iron box, but instead features an eye-catching facade whose main theme is based on a bar code.**

The world's first inner-city Ikea store was opened in the summer of 2014 on the site where the run-down Frappant shopping center once stood in Hamburg's Altona district. The building was designed and built by the architecture firm nps tchoban voss. The facade is the result of a competition won by the Hamburg-based firm Dinse Feest Zurl (DFZ). With an area of 10,000 square meters, this is the smallest site on which an Ikea furniture store has been built to date. To make up for this, the building has eight floors instead of the usual two, featuring a sales area of 18,000 square meters and four parking levels.

#### **Not a blue and yellow box**

For its store in the pedestrian area of Altona, the furniture giant developed a new concept that targets metropolitan clientele, which is why the building features new architecture instead of the typical blue and yellow corrugated iron boxes. The archi-





↑ Unequally spaced, ridged metal panels create a facade that looks like a bar code.

← The narrow side surfaces feature the iconic Ikea blue.



↑ The furniture giant developed a new concept for its store in the pedestrian area in Hamburg's Altona district.

Architects at DFZ designed a facade whose main theme is based on a bar code, which is formed by a series of unequally spaced, ridged metal panels. The front surfaces of the facade panels were coated white, with only the narrow side surfaces colored in the iconic Ikea blue. As a result, you will only notice that the building is that of the famous furniture store when looking from a certain angle. The horizontal structure and the protrusions and recesses make this massive complex appear smaller, helping it to integrate into the heterogeneous urban landscape. Large store windows and a café on the ground floor also create a sense of openness.

#### A sustainable concept

The interior is also designed differently to a standard Ikea store. Daylight floods into the sales area and the self-service halls via large windows, which establish a link to the surrounding area. The aisles are wider, giv-

ing the floors a much more roomy feel. The individual levels are connected by a spacious staircase with escalators – just like at a classic department store.

With its inner-city store, the Swedish furniture group aims to appeal to customers who had previously been put off by the location of its stores in industrial parks. The new furniture store is well served by public transportation and is easy to reach without a car. With a tailor-made delivery concept, Ikea aims to ensure that the transportation of larger purchases can be carried out sustainably, at a reasonable price and within a narrow time frame. The energy concept is also sustainable and meets the stringent requirements for DGNB certification. For example, environmentally friendly, energy-efficient technical building systems are used to heat and cool the furniture store. ←

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#### New Ikea building, Hamburg-Altona (DE)

Building owner: Ikea Germany, Hofheim-Wallau (DE)

Architects: nps tchoban voss and DFZ Architects GmbH, Hamburg (DE)

Completed: 6/2014

Sanitary engineer: Engineering office Canzler, Mülheim (DE)

Plumber: Zilisch GmbH & Co. KG, Ahaus (DE)

Geberit know-how

Duofix installation systems

Mapress Carbon Steel piping systems

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Green building: DGNB Certificate

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↑ The facade made of translucent glass panels is virtually opaque during the day.

# A glowing light box

Mieczyslaw Karłowicz Philharmonic Hall,  
Szczecin, Poland

**The young Barcelona-based architectural office Barozzi Veiga designed the new philharmonic hall in Szczecin.**

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**Mieczyslaw Karłowicz Philharmonic Hall,  
Szczecin (PL)**

Building owner: City of Szczecin (PL)

Architects: Barozzi Veiga, Barcelona (ES)

Completed: 9/2014

Plumber: Santech s.c. Lesiński M., Szczecin (PL)

**Geberit know-how**

Duofix installation systems

Electronic urinal flush controls

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→ Thanks to its translucent glass facade, the new philharmonic hall looks like a light sculpture.



↑ A look inside the foyer



The new philharmonic hall in Szczecin was erected on the exact site where the old "Konzerthaus" (concert hall) once stood. Built in 1884 and damaged during the Second World War, the concert hall was demolished in the 1960s. The site was used as a parking lot for decades. The new philharmonic hall is named after the Polish composer Mieczyslaw Karłowicz and was designed by the Italian-Spanish architecture duo of Fabrizio Barozzi and Alberto Veiga. Among 42 submissions, the young archi-

tectural office won the competition in 2007 with its extraordinary design.

According to the architects, the new philharmonic hall aims to create a link to Szczecin's cultural past and aspires to a "pure and clear architecture." At first glance, the building – which takes up half a block and is detached on three sides – appears almost alien and abstract due to its milky white facade, yet at the same time is also adapted to its surroundings. The archi-

itects adopted a range of existing elements from the urban landscape – such as the steep roofs of the downtown buildings, the vertical divisions of the urban blocks and the picturesque towers in the old city center.

**Black box and gold leaf**

Having walked through the rather unpretentious main entrance, you enter the foyer, which is illuminated by daylight entering from the skylights and dominated by large



## Focus Szczecin Philharmonic Hall



↑ Szczecin and its new philharmonic hall, which was erected on the site of the old concert hall.

white and bright features. The architects designed a spatial structure that is clear and quick to comprehend. The foyer leads to the central rooms: a symphony hall with a capacity of just under 1,000, a hall for chamber music for around 200 spectators and a multifunctional space. An exhibition level is found under the pitched roof and the two underground floors contain an underground parking garage.

The chamber hall on the first floor is accessed via a free-standing, theatrically winding staircase. In contrast to the white, naturally lit foyer, this hall is designed as a closed black box topped off with a curved, dark and smooth ceiling. With its cool, subdued design and the points of light in the ceiling that aim to be evocative of the night sky, the chamber hall is fittingly called "Moon Hall". Thanks to its formal and material opulence, the large symphony hall

bears the name "Sun Hall." The ceilings and walls feature irregularly structured, triangular-shaped panels covered in gold leaf. It took eight months to apply these thin, square sheets of gold, which now subtly – yet effectively – structure the surfaces.

### A translucent frosted glass facade

The material for the facade and roof consists of a double-skin steel-glass structure with translucent glass panels, which are white and virtually opaque during the day. After dark, the frosted glass facade is indirectly lit up by hundreds of tiny LED spotlights. The integrated lighting can also produce multicolored effects and create a festive mood. The building structure, which is evocative of a giant crystal, is designed to contrast with its immediate surroundings and change its appearance "with the reflections of the seasons, the sky and the city." ←



↑ A look inside the large symphony hall





Interview with Robert Lewandowski, co-owner of Santech s.c. Lesiński M., Szczecin (PL)

## Functionality and hygiene

You were the general contractor for sanitary installations at the philharmonic hall in Szczecin. Were there any particular challenges that had to be overcome?

**Because of the architecture, there weren't any unusual problems to be solved with respect to the sanitary installations. However, because a building like the philharmonic hall has a large number of visitors, the architects had clear requirements when it came to the urinal flush controls. Although aspects such as functionality and hygiene play a key role here, the architects also expected the design element to be considered when it came to product selection.**

Which Geberit products did you use to meet these requirements?

**We opted for the electronic urinal flush controls from Geberit. In our view, this was the best solution for a public building. The electronic urinal flush controls from Geberit ensure that visitors are always met with a cleanly flushed, hygienic environment. With this product, even highly frequented sanitary installations are always in pristine condition. The products from Geberit are also robust and durable as well as easy to clean and operate – all extremely important aspects in public areas.**

Were you also able to meet the architects' design expectations?

**Absolutely. The hidden urinal control is installed discreetly behind the ceramic appliance and cannot be seen by the users. This therefore enables a great deal of freedom when designing the toilet facilities while also protecting the technology against violent acts of vandalism. ←**



↑ The walls and ceiling of the large symphony hall are lined with irregularly structured, triangular-shaped panels.

# A challenging circuit for high-tech racing machines

Sochi Autodrom, Formula One, Sochi, Russia



↑ The Formula One circuit in Sochi is located on the Black Sea coast.

### Sochi Autodrom, Formula One, Sochi (RU)

Building owner: OJSC "Center "Omega",  
Sochi Autodrom, Krasnodar (RU)  
Architects: Tilke GmbH & Co. KG,  
Engineers & Architects, Aachen (DE)  
Opened: 10/2014  
Plumber: Spezteploservice Ltd,  
Krasnodar (RU)

#### Geberit know-how

Keramag Renova Nr. 1 wall-hung WCs,  
washbasins, urinals  
Keramag Vitalis WCs, barrier-free



↑ The race control building at the Sochi Autodrom

**With a length of 5.848 kilometers, the Sochi Autodrom circuit is one of the longest on the Formula One calendar. Opened in 2014, it is the only racing circuit in the world to be located in an Olympic Park.**

Anyone who didn't manage to make it along to Sochi for the 2014 Winter Olympics still has the opportunity to check out the Olympic Village. Here on the Black Sea coast lies the only Formula One racing circuit in the world to be located in an Olympic Park. On 12 October, 2014, the first Russian Formula One Grand Prix was held here. Although planned since 2002, the Russian President Vladimir Putin and Formula One chief Bernie Ecclestone only signed the deal that brought Formula One to Russia in 2010.

#### **A combined street circuit and high-speed circuit**

The Aachen-based firm Tilke Engineers & Architects was commissioned with planning the Sochi Autodrom. Hermann Tilke is regarded as the leading expert when it comes to planning and building race and test tracks. To date, Tilke has planned and built 28 circuits worldwide.

A combined street circuit and high-speed circuit was built for Sochi. The circuit was





↑ The site's later use was already taken into account when constructing the Olympic venues.

← The pit building contains 35 pits for the Formula One teams.



↑ A view of the grandstand and the racing circuit

partly integrated into the local road network and is divided into two sections. The first, larger section is used exclusively for Formula One races, while the shorter section can also be used for other motorsports events.

#### Speeding towards the checkered flag at 300 km/h

At 5.848 kilometers, Sochi has the third-longest circuit on the racing calendar, behind Spa-Francorchamps in Belgium and Silverstone in the UK. Consisting of twelve right- and six left-hand corners and featuring an average speed of 215 km/h running in a clockwise direction, the demanding circuit tests the drivers' ability to the limit. When the race begins, the drivers speed past the Iceberg Skating Palace towards Medals Plaza, which they drive halfway around. This long, horseshoe-shaped bend

is the most spectacular part of the circuit. The drivers then head around the Bolshoy Ice Dome, then past the Ice Cube Curling Center and the Adler Arena, before zooming on a long straight back towards the start/finish area at up to 300 km/h.

The site's later use as a Formula One circuit was already taken into account and the areas for the corresponding buildings planned for back when constructing the Olympic venues. Today, the site contains 16 team buildings as well as the pit building with 35 pits for the Formula One teams, a medical center, the race control building, the main grandstand and the media center. ←



**A creative solution – Keramag Renova Nr. 1**  
With more than 24 million products sold, the Renova Nr. 1 range from Keramag is one of the most successful sanitary ranges in the world. As a result, the sanitary facilities in all buildings on the Sochi Autodrom site were also equipped with products from the Renova Nr. 1 range. Renova Nr. 1 is characterized by its contemporary design and high value retention, as well as by its high level of functionality for all building-specific requirements. It also offers optimal solutions thanks to its exceptional range of products, and it is combinable with a comprehensive furniture range. The washbasins from the Renova range are available in various sizes and with various tap hole and overflow types. The Renova wall-hung WCs have almost invisible fixings, a water-saving 4.5-liter flush and easy-to-clean external surfaces. When installed in public and semi-public areas, the Renova urinal can also be equipped with the electronically controlled urinal flush system Flushcontrol.



↑ Following extensive renovations, this heritage building, which was formerly home to various banks, was transformed into a luxury hotel.

## Architectural gem with Viennese flair

Hotel Park Hyatt Vienna, Vienna, Austria

**In the heart of Vienna's old town, a 100-year-old bank building was converted into a luxury hotel. Today, the Park Hyatt Vienna combines contemporary architecture with the ambiance expected from a heritage building. In the bathroom, the shower toilets Geberit AquaClean 8000plus are part of the exceptional comfort that the five-star hotel has to offer.**

In the heart of the "Goldenes Quartier" in Vienna lies a 100-year-old heritage building that was formerly home to various banks. The building at Am Hof 2 – the oldest square in the city – was constructed between 1913 and 1915 by the architects Ernst von Gotti-hilf and Alexander Neumann. Following extensive renovations, the building was transformed into a luxury hotel between 2011 and 2014. Today, the Park Hyatt Vienna features 108 luxurious and spacious hotel rooms and 35 suites.

### **A conversion true to the original**

The Vienna-based architecture firm Neumann + Partner was commissioned to carry out the planning and conversion. Following an international competition, the Amsterdam-based interior design studio FG Stijl

was selected for the interior work. The conversion involved gutting the historical complex and redesigning it from scratch, with all conversion measures implemented in cooperation with the Austrian Federal Monuments Office and carried out by craftspeople in line with the original. In order to optimize room heights and functional areas, numerous ceilings and walls were removed and built back in at a different location, with the architects paying particular attention to protecting the historical components from damage. For example, wall cladding was carefully disassembled, restored and then remounted in its original position. The facade and the 100-year-old original box-type windows were also professionally renovated and preserved.

## Hotel Park Hyatt Vienna, Vienna (AT)

Building owner: Signa Prime,  
Vienna (AT)  
Architects: Neumann + Partner,  
Vienna (AT)  
Completed: 6/2014  
Plumber: DI Anton Hofstätter GmbH,  
Graz (AT)

### Geberit know-how

AquaClean 8000  
AquaClean 8000plus  
Silent-PP piping systems  
Silent-db20 piping systems  
Mepla piping systems  
Huter installation elements  
Wall drain for showers  
Actuator plates Sigma20



↑ The room where the bank safe used to be located now features a relaxing spa area with a large swimming pool.

← The facade and its original box-type windows were preserved following the professional renovation.

### Spa area in the former bank safes

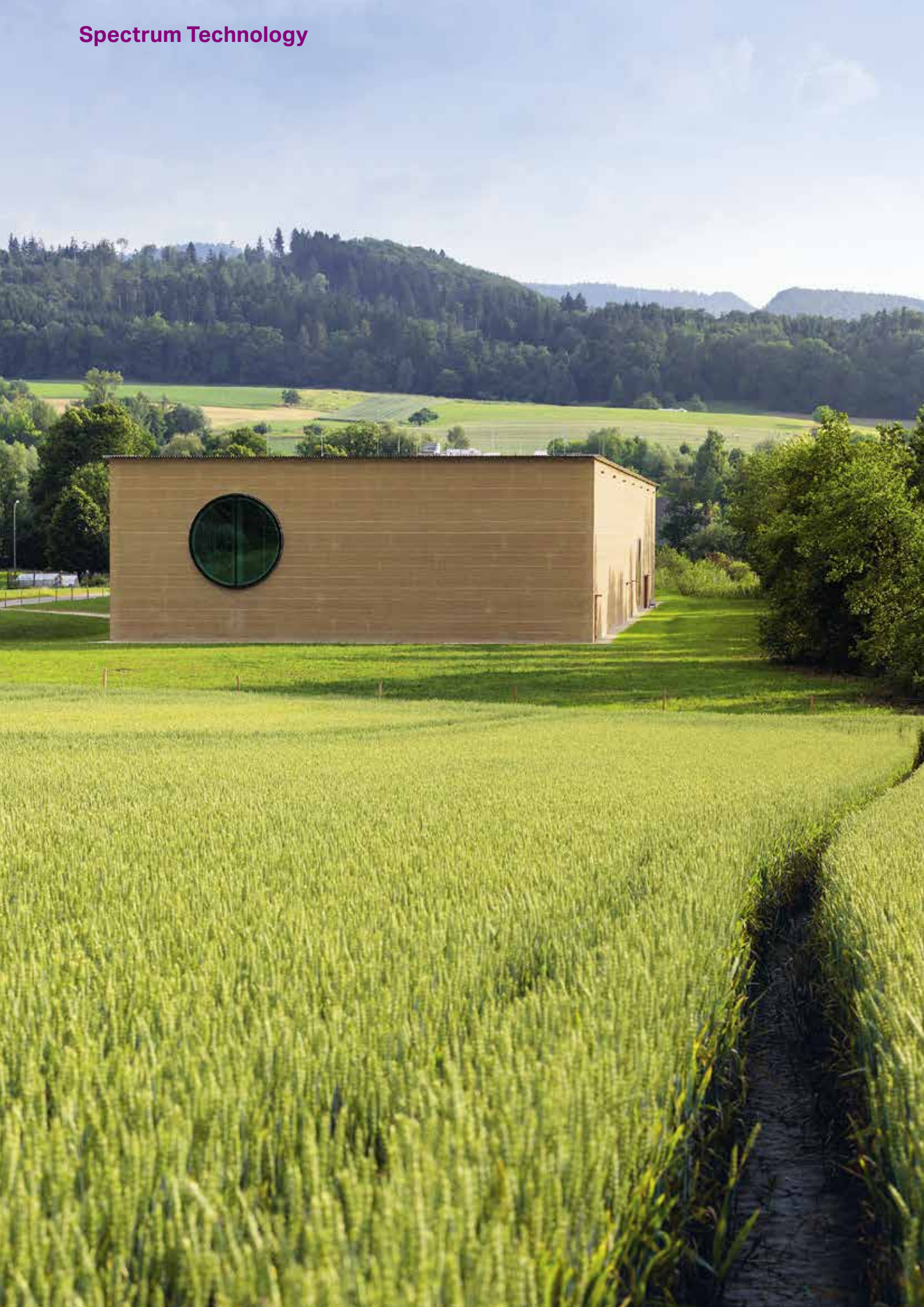
Converting the two-story basement – where the former bank safes were located – into a spa area with a large swimming pool proved a major challenge in terms of structural engineering. To gain more room height, the suspended ceiling was removed and new beams added. To do this, the entire building had to be painstakingly lifted using hydraulic jacks so as to not damage the heritage-protected seamless marble slabs in the former cashier hall located above, which now houses the restaurant “The Bank.”

Due to the building structure, it was not possible to build standard rooms. As a result, virtually no two hotel rooms are alike. When furnishing the 143 spacious hotel



↑ The shower toilets Geberit AquaClean are a standard feature at the Park Hyatt Vienna Hotel.

rooms, the interior designers combined timeless, elegant design with local Viennese flair. All the rooms also feature spacious bathrooms equipped with shower toilets from Geberit AquaClean. “Shower toilets are a standard feature at the Park Hyatt Vienna because they offer unparalleled comfort and are also expected by international guests,” explains Dietmar Ploberger, Project Manager at Signa Development, the company responsible for the conversion. ←





# Mountain herbs in a loam-clad building

Geberit Silent-db20 ensures optimum sound insulation

**Built by Basel-based architecture firm Herzog & de Meuron, Ricola's new Herb Center in Laufen is Europe's largest loam building.**

Following a period of construction spanning 16 months, Ricola's new Herb Center – Europe's largest loam building – was opened in Laufen. 1,400,000 kilograms of fresh herbs are now cleaned, dried, cut, stored and mixed at the center every year. The building has a solid rammed earth facade and was designed by Herzog & de Meuron. It is already the seventh project that the international architecture firm based in Basel has completed for Ricola.

#### Local loam

The Herb Center is over 100 meters long and around eleven meters high. The Laufen valley's landscape and geology formed the reference points when it came to the Herb

Center's design. The loam, to which marl and gravel were added, comes from an area within eight to ten kilometers of the site. The natural material envelops the state-of-the-art facility and helps to stabilize the temperature and humidity levels inside the building. As established experience was required to ensure that the individual loam blocks had the right mix of materials and that the building was built to the most professional standards, the Austrian company Lehm Ton Erde Baukunst was brought in to build the 50-centimeter-thick loam facade. Its founder and managing director Martin Rauch is Europe's leading expert in loam construction techniques.

The greatest challenge was getting to grips with the different characteristics and movements of the facade and the reinforced concrete structure. Lime layers incorporated into the facade protect against leaching and the associated erosion caused by wind and rain. The five-meter-high round windows break open the earthy unity of the structure and take the low compressive strength of the loam into account. ←

← The Laufen valley's landscape and geology formed the reference points when it came to the Herb Center's design.

#### New Ricola building, Laufen (CH)

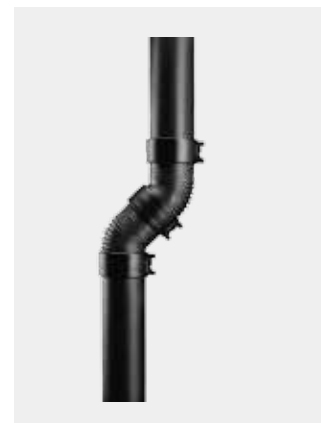
Building owner: Ricola AG, Laufen (CH)  
Architects: Herzog & de Meuron, Basel (CH);  
Lehm Ton Erde Baukunst GmbH, Schlins (AT)  
Completed: 6/2014  
Sanitary engineer: Kundert Planer AG,  
Schlieren (CH)  
Plumber: Klima AG – Hälg Holding AG, Basel (CH)

#### Geberit know-how

Silent-db20 piping systems  
PE piping systems  
Duofix installation systems  
Electronic urinal flush controls and  
lavatory taps  
Actuator plates Sigma01

#### Silent waste water

Sound insulation is a key factor when constructing a building. The sound of the wastewater in technical building systems can quickly become a disturbing source of noise. This noise can be reduced by using drainage systems that absorb the highest levels of sound possible. Geberit offers a range of top-class solutions here, including the building drainage system Silent-db20. This system comprises pipes and sound-optimized fittings made of particularly heavy, low-vibration plastic as well as pipe brackets that decouple the discharge pipes from the building structure.



← Geberit  
Silent-db20



↑ The apartment complex Leedon Residence is being built in Leedon Park in the immediate vicinity of downtown Singapore.

# City residences surrounded by lush greenery

"Leedon Residence," Singapore



**Leedon Residence, Singapore (SG)**

Building owner: GuocoLand Group, Singapore (SG) – a member of the Hong Leong Group, Singapore (SG)  
 Architect: SCDA, Chan Soo Khian, Singapore (SG)  
 Completion: 12/2016  
 Sanitary engineers: Woh Hup (Private) Limited, Singapore (SG)  
 Plumber: Woh Hup (Private) Limited, Singapore (SG)

**Geberit know-how**  
 Kappa concealed cistern 15 cm  
 Actuator plates Bolero

Green building: Green Mark



↑ The luxurious apartments are designed in a "loft style" and feature large windows.

**Despite its proximity to the city center, the exuberant, luxurious residential complex Leedon Residence located in Leedon Park is a perfect example of green living in metropolises.**

The apartment complex Leedon Residence is currently being built in Leedon Park, which is located in the immediate vicinity of downtown Singapore. Due to their materials and colors, the loft-style apartments offer a harmonious atmosphere and provide city dwellers with a place to escape the stresses of urban living – an ambiance architect Chan Soo Khian successfully achieves by incorporating natural light and sophisticated ventilation concepts. The living rooms and bedrooms are arranged around the center of the building and offer an unobstructed view of lush greenery and the Singapore skyline thanks to large balconies and windows. The bathrooms, on the other hand, are located in the core of the building and face away from the main facade. The overhanging balconies are framed by aluminum mesh structures and

vertical partition walls and extend over the entire glass curtain wall right up to the roof of the building.

**Hotel-style living**

The 381 modern residential units have an on-site pool, changing rooms, a gym, clubhouse and communal areas, providing residents with amenities similar to those found in a hotel. The garden features hedges, bushes and trees arranged on various levels. Rough-hewn stone walls and light wood paneling alternate, creating a beautiful optical contrast. The harmonious transitions between outdoor areas, building architecture and interior spaces have created a seamless link between private and public space. ←

The water consumption element of the BCA Green Mark standard – Singapore’s sustainability label – was duly considered by installing the dual-flush actuator plate Bolero from Geberit. In addition to reducing water consumption, easy installation and functional reliability, the actuator plate also offers interior designers and architects considerable creative freedom thanks to its large selection of finishes and designs. Bolero is available in a total of 13 different colors. Chan Soo Khian, the architect who designed Leedon Residence, opted for the matt-chrome-plated version.



← Geberit actuator plate Bolero

## Trend, pages 6–11

### Markthal, Rotterdam

Architects  
MVRDV  
Dunantstraat 10  
NL-3024 BC Rotterdam  
T +31 10 477 2860  
→ [www.mvrdv.nl](http://www.mvrdv.nl)

Plumber  
Unica Group  
De Wel 15  
NL-3871 MT Hoevelaken  
T +31 33 2478080  
→ [www.unica.nl](http://www.unica.nl)

### Panorama, pages 12–18

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Architects  
Zaha Hadid Architects  
Studio London  
10 Bowling Green Lane  
UK-London EC1R 0BQ  
T +44 20 7253 5147  
→ [www.zaha-hadid.com](http://www.zaha-hadid.com)

in cooperation with:  
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Jamsil Building  
295, Olympic-ro  
Songpa-gu  
KR-Seoul  
T +82 2 2184 5901  
→ [www.samoo.com](http://www.samoo.com)

Plumber  
NNH System Co Ltd  
Suite 204  
Hyojin Building  
280-36 Seongsoo-dong 2 ga  
Seongdong-gu  
KR-Seoul  
T +82 2 554 0972

Plumber  
YOUONE engineering  
Suite 303, Samhwan Digital  
Venture Tower  
280-13 Seongsoo-dong 2 ga  
Seongdong-gu  
KR-Seoul  
T +82 2 2024 0480  
→ [www.youone.co.kr](http://www.youone.co.kr)

#### Mons International Congress Xperience

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US-New York, NY 10006  
T +1 212 497 9100  
→ [www.libeskind.com](http://www.libeskind.com)

in cooperation with:  
H2A Architecte & Associés  
Rue Lecat 1  
BE-7020 Mons  
T +32 476 31 08 01  
→ [www.h2a.be](http://www.h2a.be)

Plumber  
Energys  
14, rue de la Chaudronnerie  
BE-4340 Awans  
T +32 4 247 32 38  
→ [www.energys-belux.eu](http://www.energys-belux.eu)

## K29

Architects  
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Vermundsgade 38K  
DK-2100 Copenhagen  
T +45 35 43 00 55  
→ [www.plh.dk](http://www.plh.dk)

Archinova  
Pylimo gatvė 30  
LT-01135 Vilnius  
T +370 5 212 0581  
→ [www.archinova.lt](http://www.archinova.lt)

Plumber  
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Naugarduko g. 102  
LT-03160 Vilnius  
T +370 5 273 8200  
→ [www.caverion.lt](http://www.caverion.lt)

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→ [www.jeanouvel.com](http://www.jeanouvel.com)

Plumber  
Al Habtoor Leighton Specon LLC  
AE-Abu Dhabi  
T +971 2 678 1033  
→ [www.hlspecon.com](http://www.hlspecon.com)

Sanitary engineers  
Buro Happold Consulting Engineers Limited  
306 Spectrum Building  
Oud Metha  
AE-Dubai  
T +971 4 335 8180  
→ [www.burohappold.com](http://www.burohappold.com)

## Main station, Vienna

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Flachgasse 53  
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T +43 1 98230000  
→ [www.awimmer.at](http://www.awimmer.at)

Ernst Hoffmann  
Ziviltechniker GmbH  
Friedensgasse 2  
AT-1020 Vienna  
T +43 1 720 20 02 0  
→ [www.e-hoffmann.at](http://www.e-hoffmann.at)

Theo Hotz  
Münchhaldenstrasse 21  
CH-8008 Zurich  
T +41 44 442 47 33  
→ [www.theohotz.ch](http://www.theohotz.ch)

Plumber  
Ortner GmbH  
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AT-1120 Vienna  
T +43 1 8044184-0  
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US-Los Angeles, CA 90066  
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→ [www.foga.com](http://www.foga.com)

Plumber  
Groupe Balas  
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FR-93583 Saint-Ouen  
T +33 1 49 45 45 45  
→ [www.groupe-balas.com](http://www.groupe-balas.com)

## Elementary school, Zugliano

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Via Giovanni Cadolini, 32  
IT-20137 Milan  
T +39 02 5401 9701  
→ [www.5piu1aa.com](http://www.5piu1aa.com)

Plumber  
Ai Engineering S.R.L.  
Via Alfonsa Lamarmora, 80  
IT-10128 Turin  
T +39 011 568 3514  
→ [www.aigroup.it](http://www.aigroup.it)

## Portrait, pages 20–21

### Jebsen Building Products Limited

Unit 2006, 20/F, Paul Y Centre 51  
Hung To Road  
Kwun Tong, Kowloon  
HK-Hong Kong  
T +852 3180 3330  
→ [www.jebsenbuildingproducts.com](http://www.jebsenbuildingproducts.com)

### Focus Germany, pages 22–29

#### HafenCity University, Hamburg

Architects  
Code Unique Architekten  
Katharinenstrasse 5  
DE-01099 Dresden  
T +49 351 810 788 00  
→ [www.codeunique.de](http://www.codeunique.de)

Sanitary engineers  
Ingenieurgesellschaft  
Ridder & Meyn GmbH  
Hans-Henny-Jahnn-Weg 23  
DE-22085 Hamburg  
T +49 40 226440  
→ [www.ridder-meyn.com](http://www.ridder-meyn.com)

Plumber  
Horst Jeske  
Ziegelberg 16  
DE-19417 Warin  
T +49 38482 22290  
→ [www.horst-jeske.de](http://www.horst-jeske.de)

Sunnus Haustechnik GmbH  
Friedrich-Ebert-Damm 202a  
DE-22047 Hamburg  
T +49 40 46862846  
→ [www.sunnus-haustechnik.biz](http://www.sunnus-haustechnik.biz)

#### Clinic building Dietrich-Bonhoeffer

Architects  
Ludes Generalplaner GmbH  
Kurfürstendamm 177  
DE-10707 Berlin  
T +49 30/700 1820  
→ [www.ludes-architekten.de](http://www.ludes-architekten.de)

Sanitary engineers  
ibm haustechnik manjah GmbH  
Molkereistrasse 3  
DE-17033 Neubrandenburg  
T +49 395 42239980  
→ [www.ibm-ht.de](http://www.ibm-ht.de)

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T +49 395 7781342  
→ [www.volgmann-gmbh.de](http://www.volgmann-gmbh.de)

## Student residence, Regensburg

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Ladehofstrasse 30  
DE-93049 Regensburg  
T +49 941 460 71 94

Sanitary engineers  
TGA Projektierung GmbH  
Hohengebrachinger Strasse 22  
DE-93080 Pentling  
T +49 941 94579411  
→ [www.tga-projektierung.de](http://www.tga-projektierung.de)

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→ [www.schmidbauer-gmbh.de](http://www.schmidbauer-gmbh.de)

## New IKEA building, Hamburg-Altona

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nps tchoban voss  
Ulmenstrasse 40  
DE-22299 Hamburg  
T +49 40 4806180  
→ [www.nps-tchoban-voss.de](http://www.nps-tchoban-voss.de)

DFZ Architekten GmbH  
Klopstockstrasse 23  
DE-22765 Hamburg  
T +49 40 866001-0  
→ [www.dfz-architekten.de](http://www.dfz-architekten.de)

Sanitary engineers  
Canzler Ingenieure GmbH  
Viehgasse 10  
DE-45481 Mülheim an der Ruhr  
T +49 208 46990  
→ [www.canzler.de](http://www.canzler.de)

Plumber  
Zilisch GmbH & Co. KG  
Von-Braun-Strasse 76  
DE-48683 Ahaus  
T +49 2561 93600  
→ [www.zilisch.de](http://www.zilisch.de)

## Focus Philharmonic Hall, pages 30–33

Architects  
Barozzi Veiga  
Carrer de Bailèn 36  
ES-08010 Barcelona  
T +34 932 15 27 61  
→ [www.barozzeveiga.com](http://www.barozzeveiga.com)

Plumber  
Santech s.c. Lesiński M.,  
Lewandowski R.  
26 Kwietnia 81  
PL-71-126 Szczecin  
T +48 91 487 58 65

## Focus Russia, pages 34–37

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Tilke GmbH & Co. KG –  
Engineers & Architects  
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D-52070 Aachen  
T +49 241 91 34 0  
→ [www.tilke.com](http://www.tilke.com)

Plumber  
Spezteploservice Ltd.  
Rostovskoe highway, 14B  
2<sup>nd</sup> floor  
RU-350 Krasnodar  
T +7 861 219 50 66

## Spectrum End user, pages 38–39

### Park Hyatt, Vienna

Architects  
Neumann + Partner  
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AT-1190 Vienna  
T +43 1 37016160  
→ [www.neumannundpartner.com](http://www.neumannundpartner.com)

Plumber  
DI Anton Hofstätter GmbH  
Wienerstrasse 10  
AT-8020 Graz  
T +43 316 7156560

## Spectrum Technology, pages 40–41

### New Ricola building, Laufen

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Herzog & de Meuron  
Rheinschanze 6  
CH-4056 Basel  
T +41 61 385 5757  
→ [www.herzogdemeuron.com](http://www.herzogdemeuron.com)

Lehm Ton Erde Baukunst GmbH  
Quadernstrasse 7  
AT-6824 Schilns, Austria  
T +43 5524 83270  
→ [www.lehmtonerde.at](http://www.lehmtonerde.at)

General planners and  
sanitary engineers  
Kundert Planer AG  
Ifangstrasse 6  
CH-8952 Schlieren  
T +41 44 755 42 42  
→ [www.kundert-ing.ch](http://www.kundert-ing.ch)

Plumber  
Kliima AG – Hälgi Holding AG  
Hochbergerstrasse 60c  
CH-4075 Basel  
T +41 61 225 90 30  
→ [www.haelgi.ch](http://www.haelgi.ch)

## Spectrum Environment, pages 42–43

### Leedon Residence

Architects  
SCDA, Chan Soo Khian  
8 Teck Lim Road  
SGP-088385 Singapore  
T +65 6324 5458  
→ [www.scdarchitects.com](http://www.scdarchitects.com)

Plumber  
Woh Hup (Private) Limited  
217 Upper Bukit Timah Road  
SG-588185 Singapore  
T +65 6385 8585  
→ [www.wohhup.com](http://www.wohhup.com)

## Waterways, pages 46–47

Architects  
Mario Bellini Architects  
Via Borgonuovo, 19  
IT-20121 Milano  
T +39 02 5815 191  
→ [www.bellini.it](http://www.bellini.it)

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T +61 2 9889 7866  
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→ [www.geberit.at](http://www.geberit.at)

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T +86 21 6185 3188  
→ [www.geberit.com.cn](http://www.geberit.com.cn)

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T +36 1 204 41 87  
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Nieuwegein  
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Geberit AS  
1470 Lørenskog  
T +47 67 97 82 00  
→ [www.geberit.no](http://www.geberit.no)

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Geberit Sp. z o.o.  
02-676 Warsaw  
T +48 22 376 0102  
→ [www.geberit.pl](http://www.geberit.pl)

**Portugal**  
Geberit Tecnologia  
Sanitária, S.A.  
1600-485 Lisboa  
T +351 21 781 5100  
→ [www.geberit.pt](http://www.geberit.pt)

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T +974 4 020 6055  
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Geberit International Sales AG  
– Representative Office Romania  
040038 Bucharest  
T +40 21 330 30 80  
→ [www.geberit.ro](http://www.geberit.ro)

**Russian Federation**  
Geberit RUS LLC  
129110 Moscow  
T +7 495 783 83 30  
→ [www.geberit.ru](http://www.geberit.ru)

**Saudi Arabia**  
Geberit International Sales AG  
– KSA Branch  
T +966 2 668 3468  
→ [www.geberit.com.sa](http://www.geberit.com.sa)

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Montenegro and Macedonia  
11000 Belgrade  
T +381 11 30 96 430  
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**Singapore/Thailand**  
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577218 Singapore  
T +65 6250 4011  
→ [www.geberit.com.sg](http://www.geberit.com.sg)

**Slovakia**  
Geberit Slovensko s.r.o.  
82108 Bratislava  
T +421 2 4920 3071  
→ [www.geberit.sk](http://www.geberit.sk)

**Slovenia**  
Geberit prodaja d.o.o.  
2342 Ruše  
T +386 1 586 22 00  
→ [www.geberit.si](http://www.geberit.si)

**South Africa**  
Geberit Southern  
Africa (Pty.) Ltd  
Sandton  
T +27 11 444 5070  
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**South Korea**  
Geberit Korea  
135-090 Seoul  
T +82 2 543 4166  
→ [www.geberit.co.kr](http://www.geberit.co.kr)

**Spain**  
Geberit S.A.U.  
08820 El Prat de Llobregat  
(Barcelona)  
T +34 902 170 635  
→ [www.geberit.es](http://www.geberit.es)

**Sweden**  
Geberit AB  
213 76 Malmö  
T +46 40 680 8930  
→ [www.geberit.se](http://www.geberit.se)

**Switzerland**  
Geberit Vertriebs AG  
8645 Jona  
T +41 55 221 61 11  
→ [www.geberit.ch](http://www.geberit.ch)

**Turkey**  
Geberit Tesisat Sistemleri  
Ticaret Ltd.  
34718 Kadıköy/Istanbul  
T +90 216 340 82 73  
→ [www.geberit.com.tr](http://www.geberit.com.tr)

**Ukraine and Belarus**  
Geberit International Sales AG  
– Representative Office  
Ukraine & Belarus  
04073 Kiev  
T +380 44 492 97 41  
→ [www.geberit.ua](http://www.geberit.ua)  
→ [www.geberit.by](http://www.geberit.by)

**USA**  
The Chicago Faucet Company  
IL-60018 Des Plaines  
T +1 847 803 5000  
→ [www.chicagofaucets.com](http://www.chicagofaucets.com)

**Other Geberit markets**  
Geberit International Sales AG  
8640 Rapperswil  
T +41 55 221 62 00  
→ [www.international.geberit.com](http://www.international.geberit.com)

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**Internationally recognized certification systems for green buildings:**

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## BREEAM

The certificate Building Research Establishment Environmental Assessment Method was developed in Great Britain in 1990 and is the oldest certification system used around the world in the area of sustainable building. The criteria take into consideration the impact on a global, regional, local and building-internal level. The levels of BREEAM certification are Pass, Good, Very Good, Excellent and Outstanding.

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## LEED

The Leadership in Energy and Environmental Design certificate was developed in the USA in 1998 based on the BREEAM standard. It defines a range of standards for environmentally friendly, resource-conserving and sustainable building. The levels of LEED certification are Silver, Gold and Platinum.

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## DGNB

The German Sustainable Building certificate was launched in 2009. The German sustainability certificate seeks to close the gaps in existing systems and to introduce additional quality criteria. For the DGNB, over 60 individual criteria were defined, which are assigned to the criteria groups Ecological Quality, Economical Quality, Sociocultural and Functional Quality, Technical Quality, Quality of the Process and Quality of the Location. The German Sustainable Building Certificate is awarded in the categories Bronze, Silver and Gold.

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## Minergie

The Minergie certificate was developed in Switzerland in 1994 and is a globally protected trademark in the area of sustainable building. To achieve certification, a compact, well-insulated and closed building shell is required, complemented by an automatic ventilation system with heat recovery. Minergie certification is available in four standards that are differently determined depending on the building category: Minergie, Minergie-P, Minergie-A and Minergie-ECO.

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The low-energy house certification (type "A+", "A" and "B") was established in Austria in 2009. This describes the energy standard that regulates the heating requirement of both new buildings and renovated old buildings. To achieve certification, energy requirements must be significantly below the maximum permissible level.

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## KfW Efficiency House 70

KfW Efficiency House 70 is a German certification system for low-energy houses and is comparable with the Swiss Minergie standard. This system stipulates that the annual energy required per square meter of living area must lie 45 percent below that of standard houses.

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## HQE

The Haute Qualité Environnementale certificate was launched in France in 1992. This standard focuses on two aspects – the ecological management of construction projects and sustainable building design. To obtain HQE certification, obligatory categories such as energy management, water efficiency and freedom from pollutants must be covered.

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## 3-star system

The Chinese Green building label was established by the Ministry of Construction in 2006. Similar to the LEED certification program, this environmental label defines a range of standards for environmentally friendly, resource-conserving and sustainable buildings. The system grants three different ratings – 1-star, 2-star and 3-star.

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## Green Mark

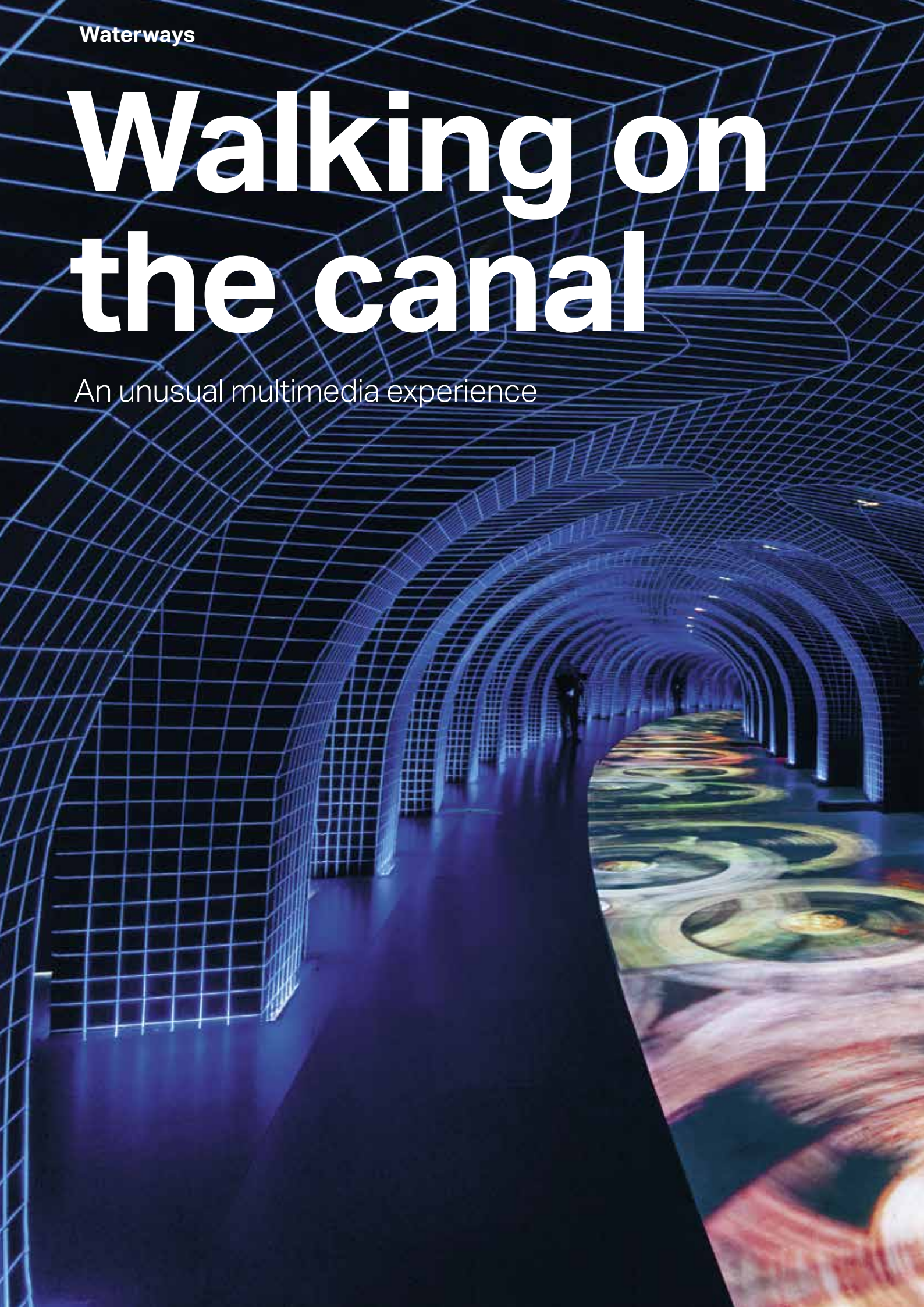
The BCA Green Mark Scheme was launched in Singapore in 2010. The assessment criteria include energy efficiency, water efficiency, environmental protection, indoor environmental quality as well as other green features and innovations. Four possible Green Mark ratings can be achieved – Platinum, Gold<sup>Plus</sup>, Gold or Certified.

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Waterways

# Walking on the canal

An unusual multimedia experience



Visitors to the Museo della Storia in Bologna are treated to something very special during their some two-hour tour of the exhibition rooms. In addition to the 35 rooms in which the city's long history from the time of the Etruscans until the present day is vividly presented, the exhibition also features three multimedia spaces with interactive installations, one of which offers an extraordinary spectacle. Anyone who enters this gallery is suddenly transported to a virtual underground canal world. For centuries, such waterways provided the city with the water that the local factories – particularly the silk factories that set up in the heart of Bologna from the thirteenth century onward – required for production. The multimedia installation transforms the room into a large arch with a canal flowing through it. A luminous blue wireframe texture on a black background simulates the walls and gives the room a fascinating aura. Visitors walk through the presentation on simulated water, which appears to flow towards them, while videos projected on mirrors in the side corridors bring the history of Bologna's canals to life. ←



