INTERNATIONAL

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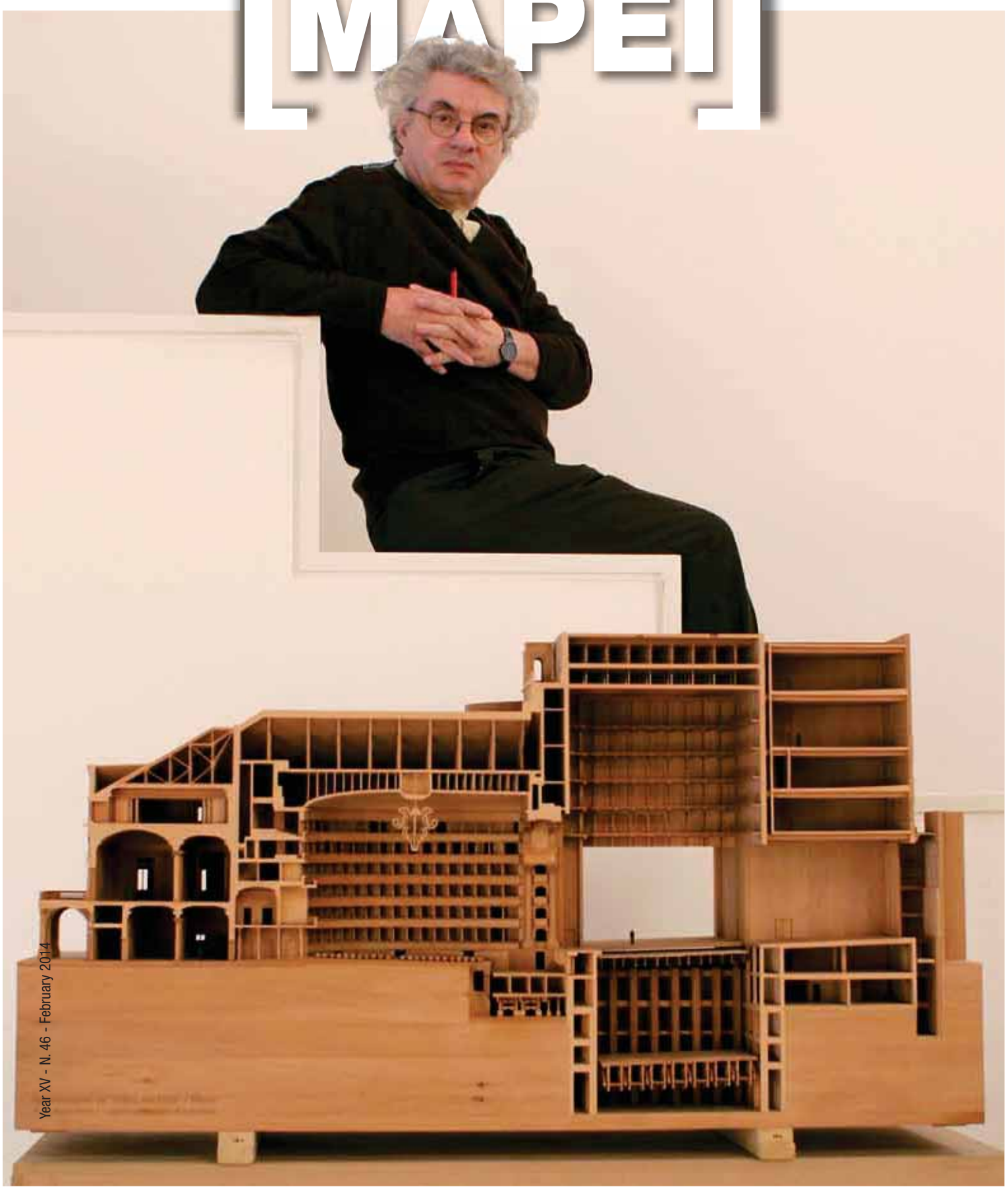
ISSUE 46



Year XV - N. 46 - February 2014

Taking root ready to set off again

ADRIANA SPAZZOLI
Realtà Mapei International editor in chief

According to an old Italian adage, at the start of a new year you throw away old things to leave room for what is new. It is a way of exorcising the past and entering, in a less cluttered up way, into a new period, which, hopefully, will be better than the time that has just gone by.

Breaking with this habit, we are entering 2014, as we have done for a number of years now, by bringing out a special issue of ***Realtà Mapei International***, which will focus on building projects carried out last year, all over the world, using Mapei systems of products. We are not doing this so that we can put them behind us and not think about them anymore. We rather focus the spotlight on all the hard work of so many people and so many companies working day-by-day on building sites using Mapei products capable of concretely solving every kind of problem, so that their dreams can come true in terms of "fine building". So it is not out of vanity or overzealous self-reference that we are proposing this procession of international works, but out of a kind of carefully acquired corporate awareness, which has taught us that you need to occasionally take root for a moment before setting off afresh.

During this period of international economic crisis, which, in certain countries in particular, has directly affected the building industry, Mapei has never abandoned its growth strategy based on specialisation, internationalisation, research and development of increasingly technologically cutting-edge products, personalised customer service, teamwork, sustainable growth, attention to the health of both appliers and users, and careful attention to Human Resources.

Taking root does not mean coming to a halt but rather keeping your feet firmly on the ground with your head held high looking to the future. A future in which Mapei knows it can play a key role in the world of building through its products, which are gradually evolving day-by-day in accordance with and one step ahead of market demands, and through its technicians who are working away tirelessly in research laboratories and on building sites.

Although it may very well be true that projects "speak for themselves", nevertheless there can be no doubt that, alongside these projects, there must also be room for thinking on a much broader scope and scale.

In our case, for example, by carrying out a survey aimed at defining how building and architecture are related: if by building we mean construction methods and materials, then architecture is the use of these materials and methods to create a new space.

So in this very special issue we are particularly pleased to include an interview given by our friend Mario Botta, the internationally famous Swiss architect, who, for some years now, has been drawing on Mapei's experience in a number of his projects. His vision of architecture, seen as both an art capable of blending in harmoniously with nature, territorial cultures and historical backgrounds and also as concrete testimony to human aspirations and historical events, coincides perfectly with Mapei's corporate spirit.

An original spirit based on creativity, expertise, flexibility and passionate enthusiasm. The kind of passion with which we will be talking about Sassuolo - the football team sponsored by Mapei - in some dedicated articles in this issue of the magazine, both from a sporting viewpoint and by studying the works carried out to modernise the Mapei Stadium in Reggio Emilia (Italy) and old Ricci Stadium in Sassuolo.

The downturn in the Italian (and European) building industry may be reaching the end of its parabola and 2014 could be the year of its revival. The driving force behind the possible re-launching of the economy might well be Expo 2015 in Milan, a great international event in which we have great faith.

Enjoy reading and enjoy…looking at the pictures!

SUMMARY

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COVER STORY. The famous Swiss architect Mario Botta, who was in charge of La Scala Theatre's renovation and extension, has been interviewed by *Realtà Mapei* editing office (see pages 2-7).

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Detached House, Riva San Vitale, Switzerland (1971-1973)

The house, located near to the shore of the lake, is characterised by its progressive subtraction in volume to enable the living spaces to gradually make way for internal terraces and open spaces overlooked by the rooms of the house. A red, metal footbridge connects the road above to the house.

Mario Botta

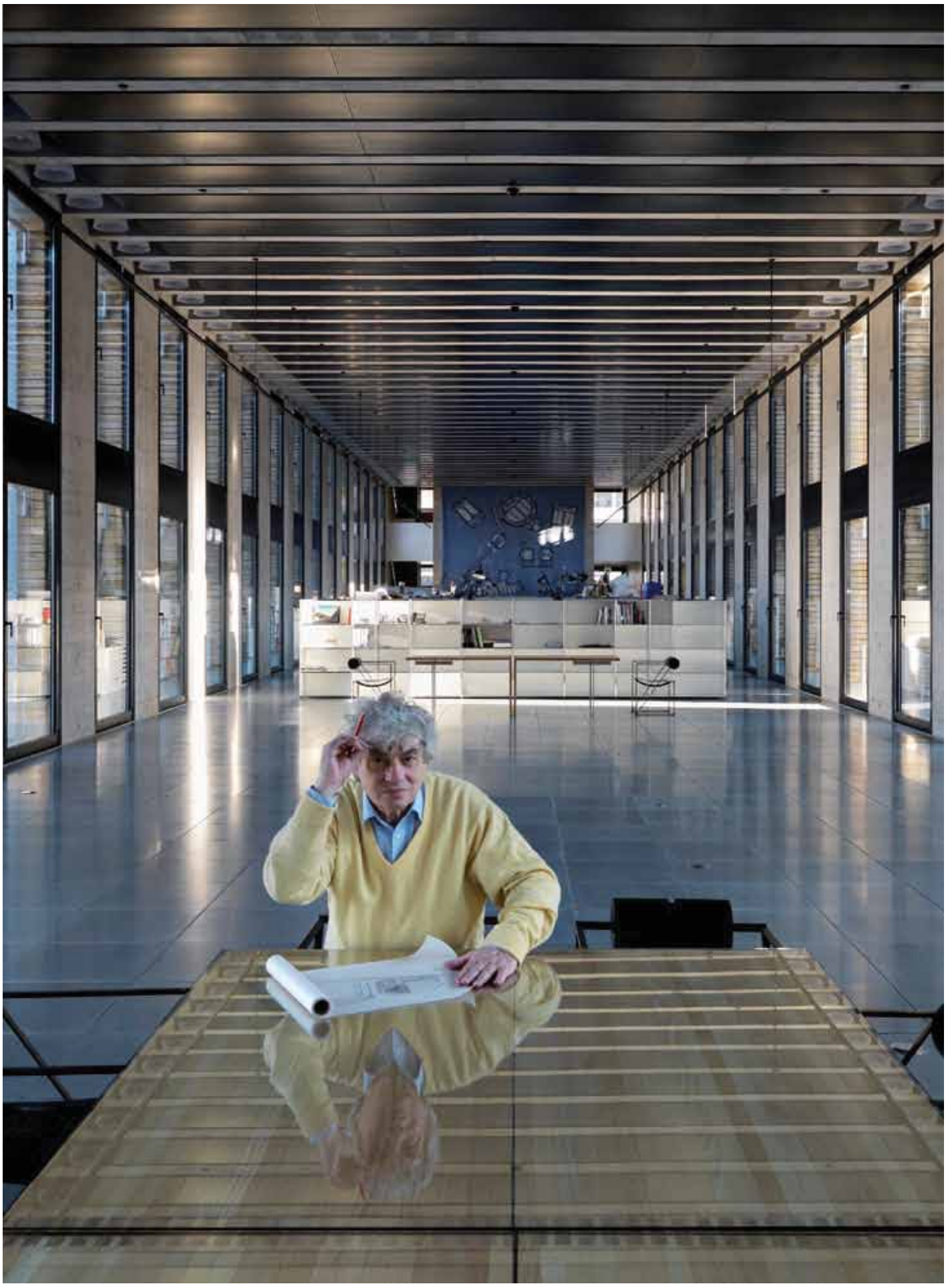
The Swiss architect talks about the distinctive elements of his architecture

His name, which is even familiar to the public at large, is now synonymous with architecture. In a career spanning over 50 years he has designed dozens of projects all over the world, drawing inspiration from maestros like Le Corbusier and Carlo Scarpa and developing his own very personal style. Nevertheless the Swiss architect Mario Botta deliberately shies from the spotlight and does not want to be known as an "archistar". On the contrary, as he tells it in his delightful interview-book entitled *Vivere l'architettura* (Living architecture), his idea of design is more reminiscent of a process of research and knowledge, constantly interacting with both the elements forming the landscape and recollections of the past. His sober style, featuring powerful and geometric architectural spaces, is the distinctive trait of his creations from his earliest detached houses in Riva San Vitale and Ligornetto (Switzerland), now part of the history of architecture, to such prestigious projects as the San Francisco Museum of Modern Art (USA) and MART, the Trento and Rovereto Contemporary Art Museum (Italy).

ABOVE. Mario and Maria Botta with Adriana Spazzoli and Giorgio Squinzi at La Scala Theatre in Milan.

He is very closely tied to the Italian city of Milan, where he designed the modernisation project for La Scala Theatre, and he is also closely tied to Mapei, whose products contributed to the completion of this complex and prestigious building project (see the lengthy article in *Realtà Mapei International* n. 16). "An exceptional building project", so Botta stated "that came up against objectively tricky working conditions of the greatest technical and functional complexity". As part of the 'Off-the-Show' events (Fuorisalone) programme of the 2011 Milan Salone del Mobile (Furniture trade fair), Botta gave a special lecture on "Architecture and the City" at Milan State University, during which he got the chance to outline the very coherent way in which abstract thinking can be connected to concrete work, also presenting numerous projects carried out all around the globe. On that occasion, Giorgio Squinzi, CEO of the Mapei Group, emphasised his personal and professional friendship with Mario Botta, "ties that have lasted over decades based on the same vision of life".

In this article Botta talks about himself in an exclusive interview given to *Realtà Mapei* and carried out by Marco Manzoni from the Mapei SpA's Marketing Department.



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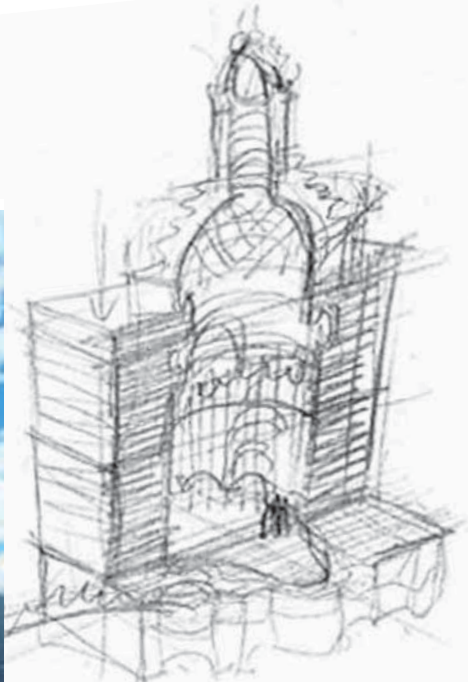


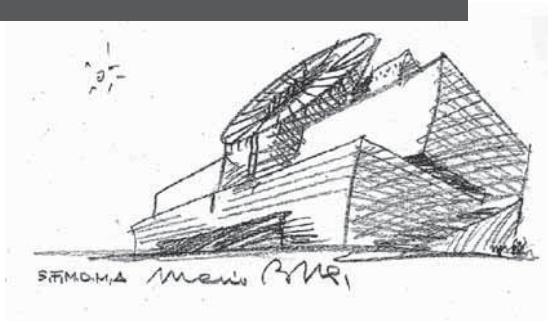
By relying on a Botta's design and Mapei's sponsorship, a huge (33 m) wooden model of San Carlo alle Quattro Fontane Church was built in 1999 on the shores of Lugano Lake in Switzerland. It shows a section of the Church, designed in Rome by Francesco Borromini in the 17th century.

San Francisco Museum of Modern Art (1990-1995)

The museum won the MAA (Marble Architectural Awards) competition in 1997 for the best design using stone in its execution. The outside has a polished appearance with a façade composed of projecting bricks and stone. A truncated cylinder decorated in black and white bands projects upwards from the centre of the construction. The internal flooring is made up of alternating rows of polished and flamed granite. Mapei supplied ULTRACOLOR grout for the joints between the slabs of granite.

In your opinion what is the purpose of architecture in the modern-day world?
In the modern-day world, just as in ancient times, architecture should shape the space in which people live. This means it must create a new kind of balance between people and their surroundings.

Why do you make such frequent use of brick in your works of architecture?
Brick is a relatively cheap natural material (clay and fire), which enjoys the privilege of "ageing" well and hence of enduring over time. I also believe that being able to shape space using a material whose own expressive potential is enhanced by constant variations in sunlight is a great advantage.



What influence have projects for detached houses had in your experience as an architect?
Detached houses, which I particularly got the chance to design when I was young, have played a fundamental part in my training and development. For an architect, houses are the most important theme in the realm of living, places

La Scala Theatre Milan (2001-2004)

This project involved the conservative restoration of the main area of the theatre itself and reconstruction of the stage tower, service areas and offices. Two new structures were also built: the ellipsoid dome with its dressing and rehearsal rooms, and a new, highly-technological scenery area. Mapei was involved in this project by supplying numerous products for both the conservative restoration work and the construction of the new structures. The company's adhesives were supplied to install the ceramic, resin, PVC, stone and wooden flooring.

© Jakub Halun

Biography

© Beat Pfändler

MARIO BOTTA

He was born on April 1st, 1943, in Mendrisio, Ticino (Switzerland). He attended an arts-oriented high school in Milan (Italy) and then continued his studies at the Venice University Institute of Architecture, where he graduated in 1969. He opened his own architectural studio in Lugano (Switzerland) in 1970 and ever since then has had a busy and prestigious teaching schedule in different countries. He was appointed a visiting professor at Lausanne (Switzerland) Polytechnic in 1976 and then Yale School of Architecture in New Haven (USA), in 1987. He was appointed to be a full professor at the Swiss Polytechnic Schools in 1983, and he was a member of the Swiss Federal Commission of Fine Arts from 1982 to 1987. Since 1996 he has been busy working as the devisor and founder of the new Academy of Architecture in Mendrisio, where he still teaches and has had the prestigious post of director for the 2002-2003 and the 2011-2013 academic years. His work has received relevant international recognitions. Among the works we remember: the Theatre and House of Culture in Chambéry (France); the Media Library in Villeurbanne (France); the SF MoMa Museum of Modern Art in San Francisco (USA); the Cathedral of the Resurrection in Evry (France); the Jean Tinguely Museum in Basel (Switzerland); the Cymbalist Synagogue and Hebrew Heritage Centre in Tel Aviv (Israel); the City Library in Dortmund (Germany); the Dürrenmatt Centre in Neuchâtel (Switzerland); MART Trento and Rovereto Museum of Modern and Contemporary Art in Italy; the Kyobo Tower and Leeum-Samsung Ceramics Museum in Seoul (Korea); the administration buildings of the Tata Consultancy Services in New Delhi and Hyderabad (India); the Martin Bodmer Foundation Museum and Library in Cologny (Switzerland); the Pope John XXIII Church in Seriate (Italy); the renovation and restructuring of La Scala Theatre in Milan; the Santo Volto Church in Turin (Italy); the Berg Oase Wellness Centre for the Grand Hotel Tschuggen AG in Arosa (Switzerland); the Château Faugères Winery in Saint-Emilion (France); the Bechtler Museum of Modern Art in Charlotte (USA; the Santa Maria Nuova Church in Terranuova Bracciolini (Italy); the Campari headquarters and Apartments in Sesto San Giovanni (Italy); the Tsinghua University Library in Beijing (P.R.C.); the former Appiani area's renovation in Treviso (Italy); the Wellness Centre in Rigi Kaltbad (Switzerland); the Museum of Fossils from Meride (Swizterland); the Twelve Hotel at Hengshan in Shanghai (P.R.C.); the Granato Chapel in the Zillertal valley (Austria).

© Gianni Dal Magro

that are lived in throughout the entire day and, more generally speaking, right through the year. They are permanent "shelters" that people return to after a hectic day's work. I believe that detached houses taught me a better understanding of the need to shape spaces in relation to people's needs.

Can the nature of a place affect your approach to architecture? And if so, how?

Every place is unique and, just as much as technical-functional needs, dictates the data and information that must be taken into consideration in a project. It is impossible to envisage a work of architecture that does not interact very closely with the surrounding land.

How can philosophy and design coexist and why must they coexist for the future development of architectural language?

Architectural design, like every other form of human expression, must come to terms with the hopes and needs underscoring people's lives. Consequently, every work of architecture is also a kind of response to the thinking, philosophy and expectations expressed by the community as a whole.

An architect must transform all that into a suitable architectural language for embodying the stylistic expression and sensibility of their own age.

In this book of memoirs and reflections, Mario Botta talks about his life from early childhood right up to the major projects of his later life, a journey that touches on the most important moments of a life rich with meetings, projects and achievements.

© Gianni Dal Magro

Offices and Residential Areas in the Former Campari Plant's Site, Sesto San Giovanni Italy (2004-2010)

The redevelopment of this area included the construction of an office complex in Viale Gramsci and Via Sacchetti and apartment blocks in Via Campari, so freeing the rest of the area to make way for a new public city park. The new Campari headquarters is divided into two main blocks connected to each other, an additional office building dating back to the early 20th century which has been turned into a museum and a new lobby similar to a large covered square pointing towards the park. The residential part has been divided into four apartment blocks in the form of quarter circles, each with a different number of floors, with the external façades covered in red brick. Mapei supplied various products for this building site, such as MAPELASTIC to waterproof surfaces and TOPCEM for making the screeds.

To what extent can people and the importance of our history of the past influence this narrative, particularly in relation to your most important works?
J'existe car je me souviens, (I live because I can remember) is a quote from a French poet that I agree with. Without the past there cannot even be a present. For an architect the past is a constant source of inspiration and learning. In the global world in which we live, the realm of memory takes on a fundamental role for all "creative people". It is not a matter of expressing forms along the mannerist lines of fake history, but rather of interpreting the spirit of the past through new means of expression. Memory is something whose value lies in thought, not style.

Why is simplicity always a distinctive feature of your architecture?
Simple, primary forms are easy to read. I believe that being able to find your way around a space is also a key aspect of inhabiting it. Moreover, simple forms, backed up by geometry, enable greater control over the balances that light generates within spaces.

In your opinion what will be the most important spaces for the community as a whole in the near future?
The city is, by definition, the place where people are brought together through relational spaces between different buildings and different activities. It is likely that in the future greater attention will be devoted to the design of spaces and works of architecture capable of meeting the need to communicate and live together (squares, theatres, conference centres, auditoriums, museums, etc.).

How important is the development of materials in your projects?
Architecture take shape through the use of the various different materials available on the market at different pe-

Lu Xun Academy of Fine Arts, Shenyang, Liaoning Province, People's Republic of China (2011)

The future cultural hub of the city, this project is part of a new urban development plan to the south of the River Hun at the crossroads of two important road networks. At the heart of the project is a large covered square providing access to the various faculties.

Faculty of Biology and Biomedicine, University of Padova, Italy (2007-2014)

This new complex was built on the site of the former Rizzato manufacturing plant of Padova, that the University and local city council wished to transform into a kind of city campus. The project was for an arched structure with separate buildings in a circular pattern pointing towards the new public park known as "Parco Europa". The building has an underground level with parking for around 100 vehicles and technical and plant service areas, and then five floors above ground with libraries and lecture areas in various sizes, depending on their use. A large entrance area leads into the heart of the building, characterised by a large open space in a semi-cylindrical shape illuminated by skylights in the roof. Mapei also supplied numerous products for this building site.

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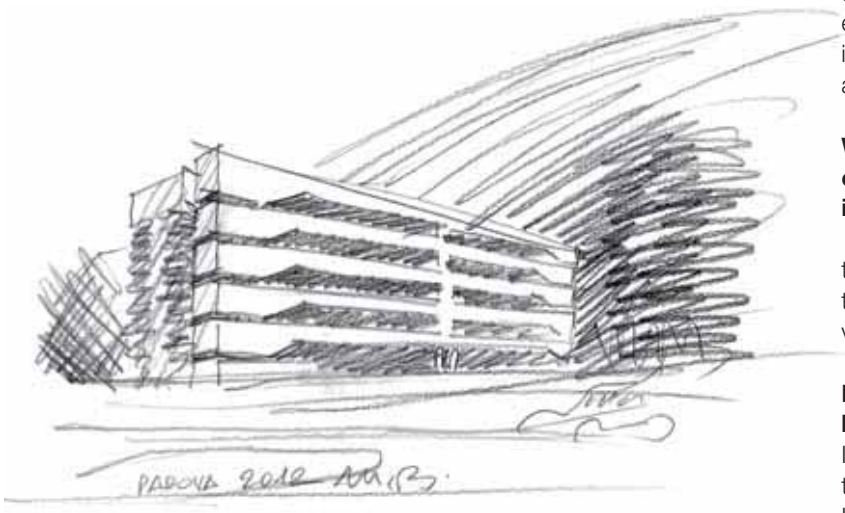

riods in time. This means architects are expected to use the products of their own age (and own culture). Whenever I am working on a project, depending on the context in question, I try to use the best products and materials available for that particular geographical setting.

Which country has had the greatest influence and contributed most to your line of architectural thinking?

"My countries", I think. On one hand Switzerland and on the other Italy, due to the richness of their orography and their different types of light. As I have already said, I believe that context is an integral part of architectural design.

Is there any particular country in which building has been a driving force behind growth?

I think it can safely be said that building is a key factor in the growth of every advanced nation. In relation to this, I can safely say, based on my current experience, that China teaches us how boosting the building industry can coincide with the hope to achieve a better quality of life.

Business and Leisure in East Asia

Major investments in infrastructure, competitiveness and enthusiasm at the base of the boom in emerging economies

MAPEI IN KOREA

by Adriana Spazzoli, Realtà Mapei International editor in chief

For the last few years I have taken advantage of my summer vacation time to make trips, which, as well as the pleasure of spending time with my family, also give me the chance to visit Mapei subsidiaries abroad.
These trips are an incredible opportunity to get to know new countries and cultures, visit Mapei corporate structures a long way from Italy, and get to know colleagues with whom we are frequently in touch throughout the year without ever getting the chance to meet them in person.
Mixing business with pleasure, the part of the world I got to visit this summer was Asia and, in particular, East Asia. This is a booming area that Mapei has really been focusing plenty of attention on for a number of years, obtaining excellent business results and growth from every point of view.
This is testified by constant improvements to existing corporate structures and facilities, the design and construction of new manufacturing plants, and continual increases in the Group's turnover.
A 21st-century Grand Tour quite different from those journeys young European people went on from the 17th century onwards, in order to learn about the politics, culture, art and ancient civilisations of European countries. A journey that was certainly useful for becoming directly familiar with that vast area of the world, which, more than any other, is imposing itself as a model for global development.

MANUFACTURING PLANT


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MAPEI KOREA LTD.

- founded in 2011
- 1 manufacturing plant
- 1 Research & Development laboratory
- 36 staff
- General Manager: Han Jintak
- Asia Pacific Managing Director: Marcel Smit

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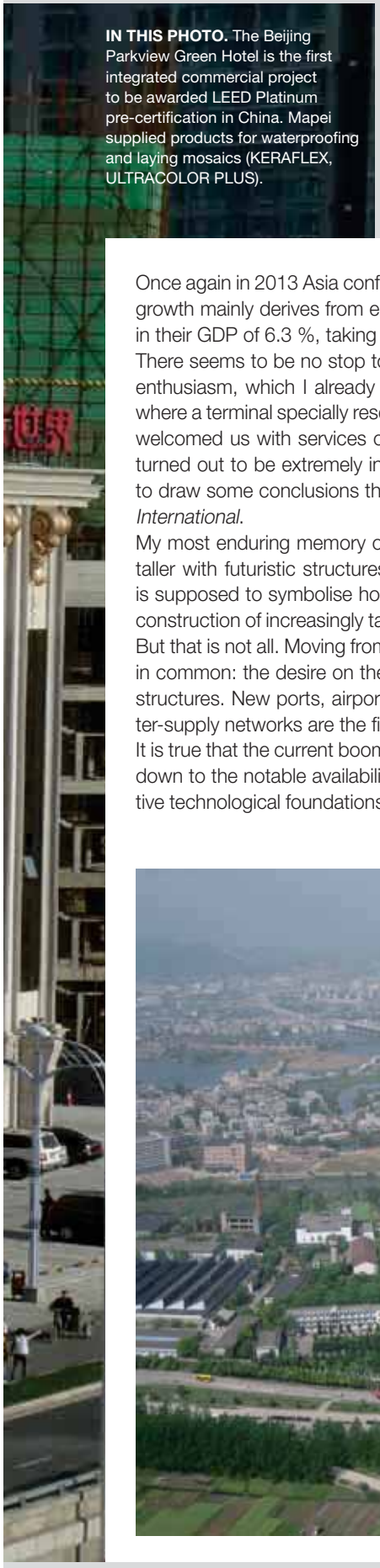
LEFT. The Song-do Central Park II in South Corea. Mapei waterproofing products, such as MAPELASTIC, were used for its construction.

MAPEI IN GUANGZHOU (P.R.C.)



IN THIS PHOTO. The Beijing Parkview Green Hotel is the first integrated commercial project to be awarded LEED Platinum pre-certification in China. Mapei supplied products for waterproofing and laying mosaics (KERAFLEX, ULTRACOLOR PLUS).

Once again in 2013 Asia confirmed it is the driving force behind the world economy. Its growth mainly derives from emerging economies that have seen an average increase in their GDP of 6.3 %, taking once again advantage of a strong internal demand.
There seems to be no stop to this growth based on a kind of contagious energy and enthusiasm, which I already began to feel as I set off from Milan Malpensa airport, where a terminal specially reserved for Singapore Airlines (the company I travelled with) welcomed us with services of the highest standard and great hospitality. So the trip turned out to be extremely interesting from several points of view, and it allowed me to draw some conclusions that I would like to share with the readers of *Realtà Mapei International*.
My most enduring memory of these countries is connected with buildings: taller and taller with futuristic structures featuring finishing touches of exceptional quality. This is supposed to symbolise how economic growth can develop hand-in-hand with the construction of increasingly tall buildings designed along the lines of eco-sustainability. But that is not all. Moving from one country to another I noticed they all had something in common: the desire on the part of their governments to invest intelligently in infrastructures. New ports, airports, major roads and motorways, and electricity and water-supply networks are the first things to catch the eye and make their presence felt. It is true that the current boom in emerging economies, particularly in Asia, may be put down to the notable availability of human resources, rapid urbanisation and competitive technological foundations. But when, as in these countries, an economy attempts

LEFT. The Edong bridge on the Yangtze River was built using DYNAMON SR.

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QUALITY CONTROL LAB

VISITING MAPEI'S CLIENT FOSHAN YUAN TAI SHENG DECORATION IN FOSHAN

MAPEI CONSTRUCTION MATERIALS (GUANGZHOU) CO. LTD.

- founded in 2005
- 1 manufacturing plant
- 1 Research & Development laboratory
- 117 staff
- General Manager: Patrick Kok
- Asia Pacific Managing Director: Marcel Smit

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to increase its internal demand and stimulate economic growth, investments in infrastructure are one of the key factors for success. They support economic growth and allow inequalities among the population in terms of salary to be reduced.
As I was able to observe from close up, this process shows no signs of stopping, confirming the World Bank's forecast estimating a 7.5% annual increase in GDP in Southern Asia over the next decade, which will translate into greater demand for investments in infrastructures corresponding to approximately 5% of the GDP, in order to meet the requirements of the local economy.
At the same time, I also noticed that the cultural peculiarities of the various different nations were duly respected, and there was also an attempt to create a balance between farm and industrial operations. A delicate equilibrium that certainly needs to be found. These nations are going through sudden periods of transition in almost all the most important aspects of life: economics, demography, politics, security and local institutions. The fact that these transitions are simultaneous and fast-moving means there is some uncertainty as to how they will actually come about.
Nowadays more and more big buildings are cropping up to accommodate people coming from the countryside creating a new middle class. The urbanisation process and rapid increase in the number of middle-class people also lie behind the favourable perspectives for the residential building industry in this area. A considerable percentage of the rise in consumption in Asia must be covered by this newly emerging class

MAPEI IN HONG KONG

HEADQUARTERS

OFFICES

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MAPEI CHINA LTD. (HONG KONG)

- founded in 2000
- 17 staff
- General Manager: Geoff Bradley
- Asia Pacific Managing Director: Marcel Smit

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LEFT. The Ocean Park in Hong Kong. Ceramic tiles, marble slabs and mosaics were laid with ADESILEX P9, KERACRETE and KERALASTIC T.
IN THE PREVIOUS PAGE. Along the Hong Kong Express Rail Link, which links Hong Kong with several areas in the People's Republic of China, some tunnels were built using Mapei products for undergound constructions such as MAPEBLOX T, POLYFOAMER FP and MAPEQUICK CBS 1.

THIS PAGE. The Petronas Twin Towers in Kuala Lumpur. In the towers and in the shopping center at their base granite and marble slabs were laid using KERAFLOOR+ISOLASTIC. Mosaic coverings were bonded with KERABOND+ISOLASTIC.

MAPEI IN MALAYSIA

OPERATING MANUFACTURING PLANT

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PLANT UNDER CONSTRUCTION

on this continent.
The facts and figures are striking. At the present moment 28% of the world's middle-class people live in Asia and this percentage could double by 2020. By this date there will be more middle-class people in China alone than the entire population living in the European Union.
Increasing wealth will move hand-in-hand with high-speed urbanisation: middle-class consumers generally live in urban areas, which also explains why Asian metropolises have been expanding faster than anywhere else since 2000.
In addition to the most striking economic and geopolitical issues, what really struck me were the people and their great enthusiasm and optimism towards the future and the prospects for a better life. In addition to all this positive energy and thinking there is an open-mindedness towards different cultural ways of life that does not conflict with local traditions.
Architecture is a clear example of this. Glass and steel skyscrapers mix in with airy roof gardens and sustainable solutions for guaranteeing a better quality of life. Respect for nature is an integral part of these cultures, successfully embodied in lots of the architectural structures I saw.
Two centuries of Western economic hegemony are over and East Asia is about to catch up with and surpass North America and Western Europe in terms of the overall size of the economy, while rapidly moving towards similar levels of individual prosperity.

BELOW. Giorgio Squinzi, President of the Mapei Group, and Adriana Spazzoli, Mapei Group's Operational Marketing & Communication Director visiting the building site of a new Mapei manufacturing plant in Malaysia.

MAPEI MALAYSIA SDN BHD

- founded in 1994
- 1 manufacturing plant
- 1 Research & Development laboratory
- 66 staff
- General Managers: Seow Aik Guan
- Asia Pacific Managing Director: Marcel Smit

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MAPEI IN SINGAPORE

MANUFACTURING PLANT

WAREHOUSE

A while ago, *Il Sole 24 Ore*, Italy's leading financial newspaper, published an interesting article by the economist Paul Krugman entitled "Unfortunately Europe has learned nothing from Asia". Europe must now quickly find fresh drive and input, in order to regain its status as a leading player on the world scene. Rediscovering the enthusiasm, confidence and positive thinking required to look optimistically towards the future is the vital prerequisite for recovery.

After all, Europe is now at the very forefront in implementing policies aimed at sustainable growth. An objective we cannot afford to overlook if we want to meet the needs of 9-10 billion people expecting to live an enjoyable life on this planet.

Europe has an immense heritage of knowledge and values; it is open to innovation, while also keeping one step ahead of the latest trends. Europe, and Italy itself, can and must play an extremely important leading role for new countries that will increasingly find themselves having to tackle these issues.

European businesses (and among them Mapei) are really focusing on developing sustainable growth, optimising processes, promoting new energy-saving technology, and training and maintaining an efficient labour force.

MAPEI FAR EAST (SINGAPORE)

- founded in 1989
- 1 manufacturing plant
- 1 Research & Development laboratory
- 80 staff
- General Manager: Chuà Kok Leong
- Asia Pacific Managing Director: Marcel Smit

www.mapei.com.sg

LEFT. Gardens by the Bay in Singapore is a huge complex with concrete and steel "supertrees". The tree in the middle hosts the restaurant where the photo above was taken. The picture shows the Mapei Group Board's dinner on the final night of the visit in East Asia.

IN THE PREVIOUS PAGE. **"**Reflections at Keppel Bay" is an architectural project by Daniel Libeskind. Wooden floors, marble, granite and ceramic floorings were laid with ADESILEX LC/RP, KERABOND T +ISOLASTIC 50 and ADESILEX P10.

Strong growth expected in the world's most dynamic market

The Asian Construction Industry

Over the last years Asia has been the driving force of both the global economy and the construction industry, with China and India leading the way.

The continent has experienced strong economic growth and, according to forecasts, in the 2013-2014 period, the average annual GDP increase should be around 6.4%. In the same period the expected annual growth in the Asian construction market should be around 6.5%, which is in line with the overall economic development. Forecasts indicate there will be growth in all sectors of the construction industry: residential, non-residential and infrastructures.

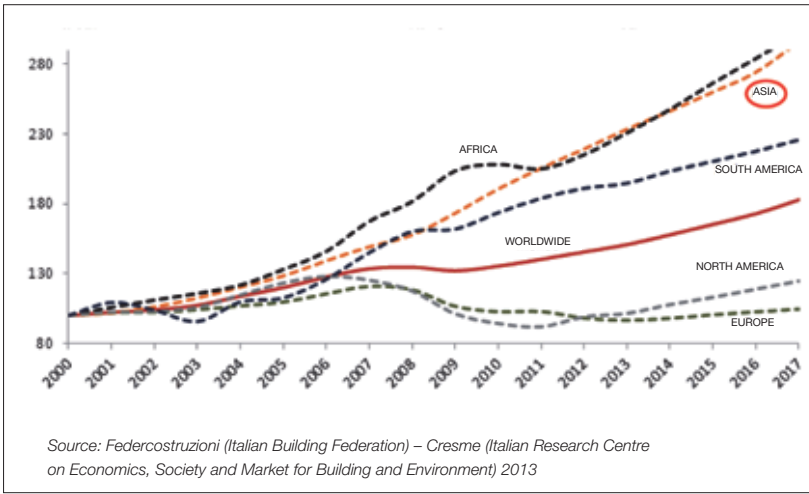
Figure 1 shows the average annual variation of the investments in residential construction in 2013 and 2014.

Clearly Asia represents one of the "hotspots" of the world's construction industry. In fact, the market growth is second only to North American one. However, it must be pointed out how, unlike North America (where this "jump" comes after a long period of recession lasting until 2011), the growth expected in the Asian markets follows a long cycle of expansion. And what is more, the Asian giants will probably maintain a steady level of growth on a long-term basis. The positive economic outlook, growth in overseas investments and a strong domestic demand should lead to a positive trend in the construction market in the years to come (see box on the facing page).

In Asia the share of new construction investments is much higher than the renovation and maintenance one.

Source: Prometeia (Italian Research and Analysis Centre on Economics) 2013

FIGURE 1. Average annual variation of residential construction investments in the 2013-2014 period.

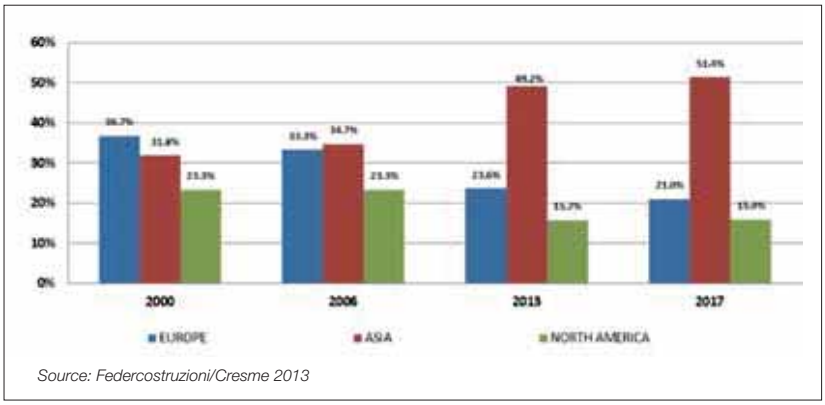


Source: Federcostruzioni (Italian Building Federation) – Cresme (Italian Research Centre on Economics, Society and Market for Building and Environment) 2013

FIGURE 2. Growth of construction investments by continent. Index: 2000=100. In most geographical areas the market has gone through stagnation or recession phases; on the contrary, in Asia growth has been consistent and forecasts indicate that this trend will continue in the years to come.

It is estimated that new construction building sites absorb more than 80% of the total construction spending, while in mature markets, such as Europe, the new and renovation segments enjoy a similar share of the overall investment value.
The magnitude of the Asian role on the global construction scene is witnessed by the share held by the continent on the world's cement market. Asia accounts for 60% of the global cement consumption which amounts to about 3.6 billion tonnes. Five Asian countries, namely China, India, Iran, Vietnam and Indonesia, are included in the list of the world's ten leading cement markets, and they have all improved their ranking over the last 10 years.
On the whole, the value of the Asian construction market is estimated at over 3,2 billion Euros, slightly less than 50% of the world's total. The Asian continent accounts for around 60% of the world's population and the per-capita construction investment is still below the world average, and is much smaller compared to the mature European and North American markets. This just goes to highlight that there are still growth opportunities for the construction sector in the region.
Over the last decade Asia is believed to have increased its share of the global construction sector. In recent years, in fact, the strong growth of the emerging Asian markets has been accompanied by the recessions of the European and North American construction industries. In 2013, the Asian share of the world's construction investments is estimated at about 49%, higher, therefore, than the combined share held by Europe and North America.
The forecast for 2017 indicates that Asia will further strengthen its leadership, and on a long-term basis, will account for more than half of the global construction market. The growth of the Asian market share should occur at the expenses of Europe, while North America, due to a strong upturn in the construction sector, should be able to consolidate its own share of the global market.

Francesco Doria. Mapei Market Research Manager



Source: Federcostruzioni/Cresme 2013

FIGURE 3. Share of the three main continents on the global construction industry. Asia has constantly increased its weight on the global market.

POSITIVE OUTLOOK FOR THE ASIAN GIANTS

CHINA
- The Chinese market accounts for 53% of the Asian construction industry value.
- The 2013 market size is estimated at 1,712 billion Euros.
- The infrastructure sector is one of the main driving forces of the construction industry in the region.
- A strong boost to the construction market is provided by the Chinese Social Housing Plan, which involves building 36 million new homes by 2015.

JAPAN
- It is the 2nd largest construction market in Asia and the 3rd largest in the world.
- The value of the domestic construction market is estimated at 400 billion Euros.
- 13%: share of Japan on the Asian continent's construction industry.
- Over the last two years, the market has been quite dynamic, however, it should slow down once reconstruction work following the 2011 earthquake has been completed.
- In the long term, the Japanese market will be overtaken in size terms by the Indian one.

SOUTH KOREA
- 111 billion Euros: value of the investments in construction activities in the country.
- It is the 5th largest market in Asia and the 15th largest in the world.
- Over the next few years, forecasts indicate more moderate levels of growth in the construction sector, which is common in most mature economies.

INDIA
- Construction investments in the country are estimated at 266 billion Euros.
- Given the country's huge population, the size of the market is still quite small and the Indian share of the Asian construction industry is just above 8%.
- Overseas investments for industrial, commercial and logistics buildings, along with the infrastructure sector, are the driving forces behind the construction market growth.
- The development of infrastructures is an absolute priority, not just for the construction sector, but for the Indian economy as a whole.

INDONESIA
- 133 billion Euros: size of the Indonesian construction industry.
- Along with Vietnam and the Philippines, Indonesia is one of the "New Asian Tigers", a group of emerging countries that share a strong economic development.
- It is the 4th largest construction market in Asia.
- The forecasted average annual market growth up to 2017 is 8%.

Trends in global building industry

Only modest growth forecast for Europe. Asian and American markets are more dynamic

In 2013 investments in construction work around the world amounted to more than 6,500 billion Euros, with an equivalent growth rate ranging between 3% and 4%. The construction industry proved to be more dynamic than the overall global economy which grew by 2.9% according to the International Monetary Fund. The forecast for 2014 is that trends will vary, depending on which continent we analyse. The Asian and American markets will continue to grow while Europe, and in particular Italy, will continue to suffer, as illustrated in this article.

An overview of the world market

Europe

The estimated value of the European construction market is more than 1,500 billion Euros, less than 1/4 of the total value of the global construction sector. Following the negative trend of the market in recent years, Europe, which until just a few years ago accounted for the largest share of investments, has lost a considerable portion of its share of the market. The construction sector recorded another reduction in 2013. The collapse of the Spanish market, along with the negative trend in the Italian and French building industries, were the main factors behind this drop. The prospects for development in the building industry for the next two-year period are very modest and the average annual rate of growth for the market is estimated to be between 1% and 2%. In fact, the more positive prospects for development in the German market and in other North European countries are balanced by an expectation of further recession in the countries that make up Southern Europe.

Asia

Asia is the most important construction market in the world with investments amounting to an estimated 3,205 billion Euros, representing a share of almost 50% of the global building market. Data regarding the pro-capita construction investment (which is much lower than the one recorded in mature markets) highlight the future potential of the Asian continent and the emerging markets in general. Estimates for the development of investments for 2013 are somewhere between 6% and 7%. Over the next few years the market should have an average growth rate of around 6%. This should be a period of sustained growth, albeit more moderate than the last decade. For an in-depth analysis, see the previous article.

North America

The estimated value of the North American building market is more than 1,000 billion Euros, which represents a share of around 16% of the global construction market. The recession that hit the North American building industry from 2007 was even more intense than the one that hit Europe but, unlike Europe, there has been a net upturn since 2012. Estimates for the two-year period 2014-2015 point to an annual rate of growth in investments of around 6%. Over the longer term, indicators for this upturn in the North American building industry seem to point to a period of sustained, long-lasting growth, and the residential sector – the one most badly hit by the recession – should see double-figure growth and a recovery of production levels.

South America

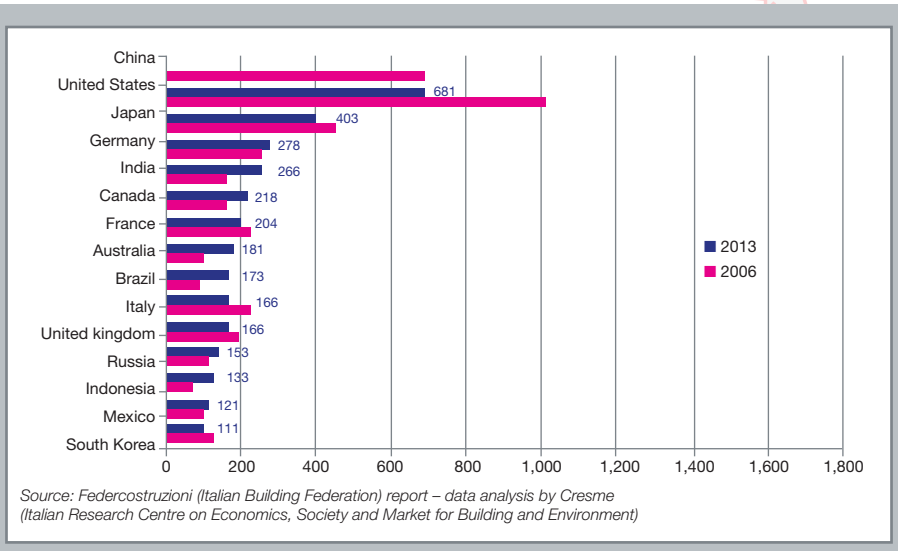
For the last two-year period estimates for the South American continent have reported moderate growth in the building sector, which up until 2011 had one of the highest rates of development in the whole world. Starting from 2014, the South American region should grow again at an estimated rate of around 5%. The construction sector will benefit from the completion of projects for the FIFA World Cup to be staged in Brazil, the country which is also the main market in the area. For the medium and long term the forecast is again positive, and an important contribution will come from the development of infrastructures and non-residential building projects for the Olympic Games to be staged in Rio de Janeiro in 2016.

Africa

In 2013 Africa had a particularly high rate of development in investments in construction work, which according to some estimates was higher than 7%. Over the last few years, the African building market has grown constantly, except in 2011, the year of social unrest and war in Libya. The rate of growth over the next few ye-

CONTINENT	2013 CONSTRUCTION INVESTMENTS BILLION €
ASIA	3,205
EUROPE	1,534
NORTH AMERICA	1,020
SOUTH AMERICA	372
OCEANIA	200
AFRICA	181
WORLD	**6,511**

TABLE 1. Share of investments in 2013 for each geographical area.



Source: Federcostruzioni (Italian Building Federation) report – data analysis by Cresme (Italian Research Centre on Economics, Society and Market for Building and Environment)

ars will also be very high, even though the rates of development must be seen in context with the smaller size of the market. With 181 billion Euros, the African building market accounts for less than 3% of the global construction industry. The devel- opment of infrastructures should drive growth in the construction market for the entire continent.

Oceania

This continent is characterised by the highest rate of investment in construction work pro-capita in the whole world. What is more, Australia is also the only mature market that has continued to grow, even during the period of global economic crisis. According to estimates the building sector should continue its development, and for the next few years it is estimated to be around 6%.

The way the market is shared in the building sector highlights how the emerging areas are tightly bound to the development of infrastructure projects that absorb the lion's share of investments in construction work in Asia, South America and Africa. In Europe the picture is differ- ent, as the residential building sector has a net dominance of the market compared with the public and non-residential sectors. The residential sector is the largest segment of the construction industry in North America as well.

The Italian construction market

The Italian construction market is still the 10th largest in the world with investments of an estimated 166 billion Euros. However, the building sector has been going through a period of deep recession for a number of years. In 2013 there was a downturn in the construction industry which is estimated, according to different sources, to be between 3.5% and 7.1%. In 2014 this sector could experience some changes.

The residential sector is still the main component in the Italian construction market, accounting for half the total investments. Non-residential and public works account for 30% and 20%, respectively, of the overall total of the Italian construction industry. The crisis has particularly hit investments into new houses, which in 2013 also suffered a net downturn of between 7% and 11%. And there is currently no reason to presume there will be an inversion of this trend in the new residential building sector, which is expected to suffer a further downturn in 2014.

In 2013 residential repair and renovation work, thanks to the help offered by tax incentives, showed a slight increase in investments. Further improvement in the maintenance and restoration sectors is also expected over the next few years.

In 2013 the fall in investments in the non-residential building sector is estimated to be between 7% and 8%. On the one hand the negative economic climate has discouraged investments into buildings for industrial, logistics, commercial and office use. On the other hand, the need to reduce costs has had a negative influence on the non-residential public sector, hitting the school and hospital building sectors in particular. The forecast for 2014 is another year of lower investments, al- though it should be a lower drop compared with that of 2013.

In the non-residential sector, too, investments into restoration work point to a much better trend than that for new constructions. According to forecasts for 2014, new non-residential building work will continue to fall, while the renovation sector should hold its ground pretty well.

In 2013 the infrastructure sector had a particularly strong downturn, with estimates indicating a fall in investments of between 5% and 8%. This fall hit the construction of new structures while the restoration sector was also hit, and estimates indicate a net fall in this sector too.

Francesco Doria. Mapei Market Research Manager

Expo 2015
An investment for the future

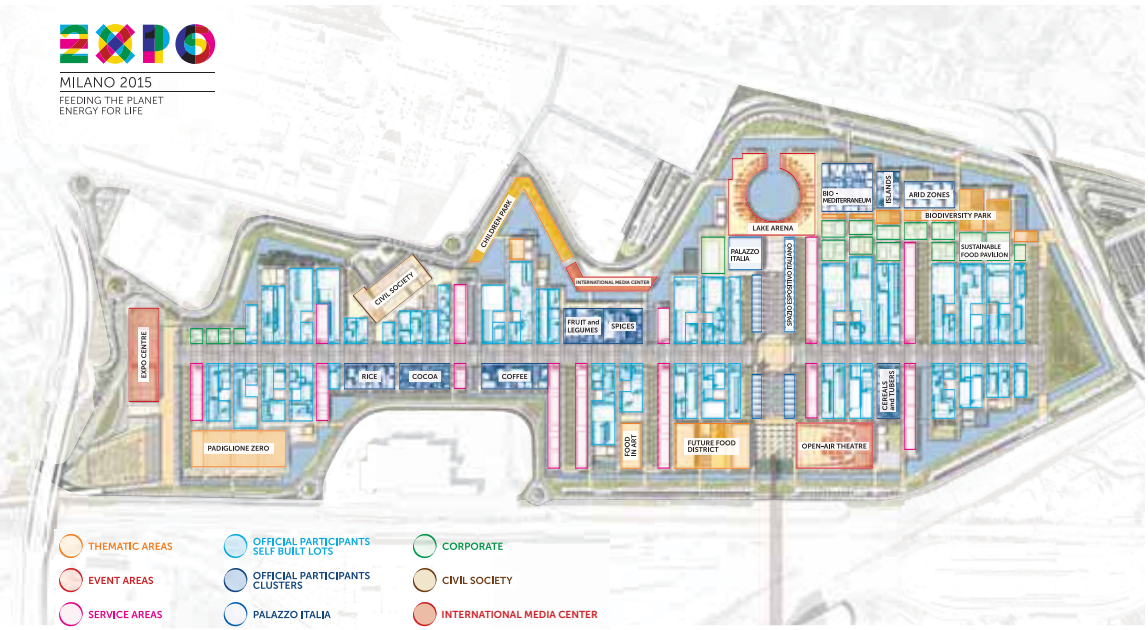
Construction work on several national pavilions is under way, while the latest figures estimate the arrival of more than one billion Euros of investments from overseas

Expo 2015 is drawing closer while the number of events is multiplying to promote and create what is unanimously considered an event of global interest. 20 million visitors are expected between the 1st of May and the 31st of October 2015, as well as more than 100 heads of state representing the 142 countries that have confirmed their official participation. Exploring the theme of "Feeding the planet. Energy for life", Expo 2015 will initiate a global-scale debate on the problem of humanity in the third millennium: food, resources and sustainability. A theme that will give Italy the opportunity to show off its excellence in terms of production, technology and science and to promote tourism.

Last December, 500 days from the start of the exhibition, 26 plots of land were handed over to 26 participating nations. And so the operative phase leading to the construction of the national pavilions got under way. "The project renderings are already telling us that this will be a great competition between architects and governments to amaze visitors", was the satisfied comment of Giuliano Pisapia, Mayor of Milan, a view echoed by the President of Confindustria (the Confederation of Italian Manufacturing and Service Companies), Giorgio Squinzi, when he stated that Expo 2015 "will be the largest scale event in Italy since the crisis, and businesses believe in it".

EXPO 2015

- **WHEN:** 1st of May - 31st of October 2015
- **THEME:** Feeding the planet. Energy for life
- **WHERE:** Rho-Pero exhibition hub in Milan
- **PARTICIPATING NATIONS:** 142
- **PARTICIPATING INTERNATIONAL ORGANISATIONS:** United Nations (UN), European Union (EU), European Organization for Nuclear Research (CERN)
- **EXPECTED VISITORS:** more than 20 million
- **NEW JOBS CREATED FROM NOW UNTIL 2020:** 191,000
- **ADDITIONAL PRODUCTION:** 23.6 Billion Euros
- **ESTIMATED FOREIGN INVESTMENTS:** 1 Billion 300 thousand Euros



Construction work on the Italian Pavilion, destined to remain in place even once the curtain has gone down on Expo 2015, is under way. The five storey Pavilion will be 25 metres tall and will be in the form of a forest in which visitors may immerse themselves.The idea that inspired the designers is that of a breeding ground, a metaphor with the intention of highlighting certain aspects of Italian society during this period of change. A breeding ground for ideas, proposals and solutions; space to grow to help designs and talent "germinate". It is not just a coincidence that the logo of the Pavilion is a stylized budding flower in the three national colours of Italy, a symbol of the different spirits that inhabit Italy, but also of its youth and future. "In the image of a budding flower" declared Diana Bracco, President of Expo 2015 SpA and General Commissioner of the Italian Pavilion, "lives the idea that everybody has to have a part in the construction of the future in order for everybody to give their best". "The Universal Exposition", Bracco added, "is an anti-cyclic generator for growth, an extraordinary opportunity to construct the infrastructures that the Italian territory has been demanding for years, and an historical occasion to re-launch the image of Italy and Made in Italy in the world". With special attention on the theme of innovation: "We want to transform the Italian Pavilion into an occasion to re-launch the capacity of Italian business to innovate", she said.
In this period of economic crisis, Expo 2015 could represent an important turning point: foreign capital coming into the country should amount to more than one billion three hundred thousand Euros. Without forgetting exports: "Thanks to the showcase offered by the Italian Pavilion", continued Diana Bracco, "we wish to increase the share in exports of our great agricultural and foods sectors".
All in all, a huge challenge. And so full steam ahead, 2015 is just around the corner.

ABOVE. From left on: Roberto Maroni, President of the Lombardy Region; Giorgio Squinzi, President of the Mapei Group; Carlo Sangalli, President of Milan Chamber of Commerce; and Diana Bracco, President of Expo 2015 SpA and General Commissioner of the Italian Pavillion attending the "500 days left before Expo" event, held in Milan, on 17th December, 2013.

THE EXPO 2015 MASCOT

The mascot Disney Italia created for Expo 2015 fully embodies the event's main themes. It is composed by several fruits-characters (watermelon, orange, banana, fig, blue maize, mango, apple, pomegranate, pear, radish and garlic) which make up a smiling Arcimboldo-style face.
The fruits have symbolic meanings: energy, altruism, variety, universality, feeding, sharing, attention to results. The fruit family embodies the ideal synergy between the world's nations who should rise to the challenge of feeding the planet just like a close and dynamic family.

Special pro

USE THIS QR CODE TO WATCH THE VIDEO CLIP ON THE 2013 GRAN PRIX PROJECTS

Feature ects

A world of projects

This is a special edition of *Realtà Mapei International*. As in previous years, we are presenting the winners of the last edition of the Mapei Reference Grand Prix. They are prestigious building sites and eco-sustainable projects that have been completed thanks also to the use of Mapei products.
This panorama contains projects divided into categories, each one with a brief summary of the building site data, a list of Mapei products used and the mention of products' or buildings' certifications.
In the next editions of *Realtà Mapei International* we will take a deeper look into a number of these projects to get a better picture of their characteristics and how they have benefited by using Mapei products.
And for those readers who would like to find out more about other Mapei projects, visit the company website at **www.mapei.com**.
On **www.mapei.it**, in the **"technical area-specification"** section, you can also find all the solutions used in the projects.
Enjoy your read!

Commercial areas 28

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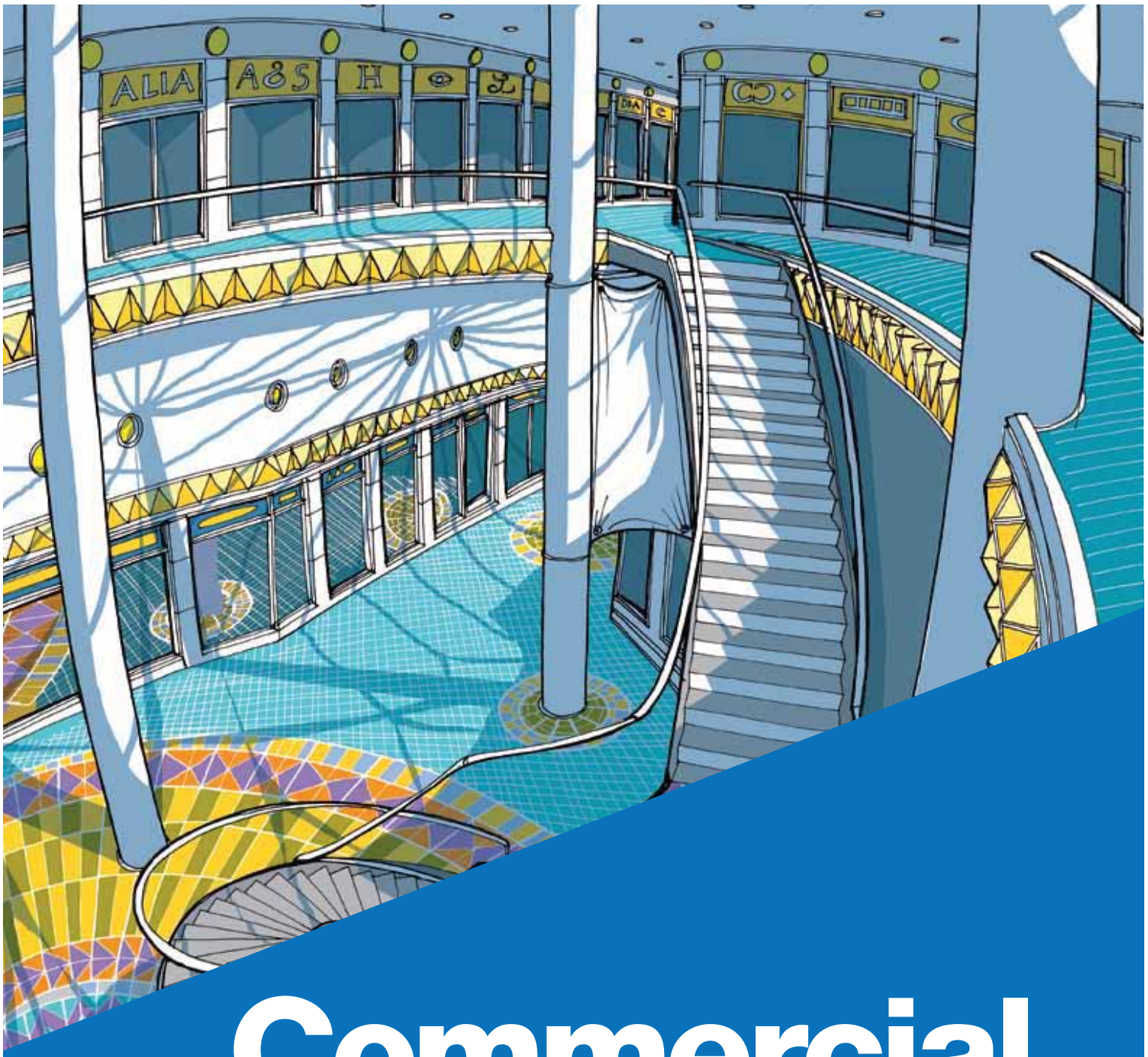


Commercial areas

From large hotels to small shops, each and every commercial operation has its own specific needs. Floors have to resist intense traffic and, in the case of luxury hotels, they also need to be particularly elegant. Whatever the project, products that respect the health of workers and end users alike must be employed, such as Mapei eco-sustainable adhesives with very low emission level of volatile organic compounds.

Leonardo da Vinci Grand Hotel
Cesenatico, Italy

PROJECT OVERVIEW

- The former Veronese Holiday Centre in Cesenatico has been turned into a grandiose, luxury hotel, and there are plans to construct a new congress centre next to it.
- It is an imposing project that required numerous interventions, from the demolition of existing structures to the construction of new areas, from strengthening work on the structure right up to the final finishing touches to the building. Because the hotel is very close to the beach, one of the interventions was to waterproof the structures and areas below ground level.

MAPEI SOLUTION

One of the numerous interventions was waterproofing work in the basement with Mapeproof sheets. Mapelastic Smart with Mapenet 150 re-inforcing mesh embedded in it was used to waterproof the balconies' substrates. They were then covered with ceramic tiles using Keraflex Maxi as adhesive. Keracolor FF was used to grout the tile joints and Mapesil AC to seal the expansion joints.

Mapei Products
Mapeproof, Mapelastic Smart, Mapenet 150, Keraflex Maxi, Keracolor FF, Mapesil AC

These CE-marked products were developed by Mapei R&D labs and feature high technology. They have been certified according to the most severe official standards and they can contribute points to obtain LEED certification.

Period of Intervention: ***2011-2013***
Client: ***Palace Hotel***
Designer: ***Arkigeo Studio***
Structural Design: ***Federico Casadei Rossi***
Works Director: ***Alessandro Franchi, Arkigeo Studio***
Structural Works Director: ***Federico Casadei Rossi***
Contractor: ***Impresa Veronese Srl***
Laid Materials: ***porcelain tiles, wooden, marble and textile floors, mosaic***
Mapei Distributor: ***Faro Snc of Vincenzi Antonio***
Mapei Co-ordinators: ***Andrea Melotti and Fabio Costanzi, Mapei SpA (Italy)***

For further information visit www.mapei.it

Astera Hotel
Varna, Bulgaria

PROJECT OVERVIEW

- The hotel is an elegant, welcoming structure near Varna, a flagship city in Bulgaria, known as the "Pearl of the Black Sea".
- The building project enclosed two phases: restructuring the existing wing of the hotel and building a new area. For the new area, the client specified porcelain tiles and natural stone for the indoor areas and a thermal insulation system for the external part.

MAPEI SOLUTION

The adhesives Adesilex P9, Keraflex Maxi S1 and Keraflex were used to install the porcelain tiles and natural stone slabs inside the building. Mapetherm EPS, Mapetherm AR2 and Mapetherm Net were used for the thermal insulation system. The insulated surfaces were finished off with Silexcolor Tonachino, a coating product which protects render without modifying its transpiration properties.

Mapei Products
Adesilex P9, Keraflex Maxi S1, Keraflex, Mapetherm EPS, Mapetherm AR2, Mapetherm Net, Silexcolor Tonachino, Silexcolor Paint

These CE-marked products have been certified by internationally recognized institutions. They were developed by Mapei R&D labs with cutting-edge technologies to safeguard the environment and the end-users' health.

Designer: ***Noifredbuild***
Period of Intervention: ***2011-2012***
Client: ***Granat AD 2004***
Contractor: ***Comfort Eood***
Laying Company: ***Bulstone Eood***
Laid Materials: ***porcelain tiles, natural stone***
Mapei Distributor: ***Dobrich Stroy***
Mapei Co-ordinator: ***Damyan Dimitrov, Mapei Bulgaria E.O.O.D.***

For further information visit www.mapei.bg

Megastore H&M
Rome, Italy

PROJECT OVERVIEW

- The headquarters of the new Benetton fashion megastore is a building in the heart of the old part of Rome. It was converted to create four storeys suitable for commercial use.
- The intervention required the installation of resin-based artificial quartz stone slabs for all the floors and wall coverings in the service areas.

MAPEI SOLUTION

Before installing the flooring the substrates were treated with the consolidating product Prosfas. The joints and cracks, on the other hand, were sealed with Eporip. The artificial quartz slabs were installed with white Elastorapid adhesive, while Keralastic T adhesive was used on the metallic surfaces. Elastorapid was also used to install the floor coverings in the service areas. Ultracolor Plus and Kerapoxy CQ were used for grouting. The control and expansion joints were sealed with Mapesil AC. Mapefoam was used to achieve the correct depth in the control joints. The screed on the flat roof of the building, made from Topcem Pronto, was waterproofed with Mapelastic Smart.

Mapei Products
Elastorapid, Eporip, Keralastic T, Kerapoxy CQ, Mapelastic Smart, Mapesil AC, Planitop Fast 330, Prosfas, Topcem Pronto, Ultracolor Plus

These eco-sustainable products were developed by the Mapei R&D labs and have been certified according to the most severe standards.

Year of Construction: ***1901***
Client: ***Benetton Group***
Period of Intervention: ***2010-2013***
Designers: ***Studio Architetti Massimiliano and Doriana Fuksas***
Contractor: ***CEV SpA***
Works Director: ***Luca Montesi, Integra AES Srl***
Building Site Director: ***Franco Biscaro***
Laying Companies: ***Marco Strappafelci***
Laid Materials: ***stone slabs by Stone Italiana SpA***
Mapei Distributor: ***Univex Srl***
Mapei Co-ordinators: ***Mario Prudente and Leonardo Butò, Mapei SpA (Italy)***

For further information visit www.mapei.it

Esselunga Supermarket
Milan, Italy

PROJECT OVERVIEW

- Quality architecture - fruit of the imagination of Ignazio Gardella - and distinguishing features: these are the hallmarks of Esselunga, a famous supermarket chain in Italy.
- The façade of the building had water seeping through it, as well as gaps and cracks; the surfaces were in need of repair; a thermal insulation system was needed to reduce energy consumption and clinker tiles had to be installed.

MAPEI SOLUTION

After repairing the surfaces with Planitop Fast 330, Mapetherm Tile System guaranteed perfect thermal insulation for the building. Clinker tiles were installed on the façade with Ultralite S1 one-component lightweight adhesive.

Mapei Products

Eco Prim Grip, Planitop Fast 330, Mapegrid G 120, Mapesil LM, Mapetherm Ba, Mapetherm Fix B, Mapetherm Fix, Mapetherm XPS, Mapetherm Tile Fix 15, Mapetherm Profil, Planitop HDM Maxi, Ultralite S1, Ultracolor Plus

These products have been certified by internationally recog-nized institutions. They contribute points to achieve the LEED certification for eco-sustainable projects.

Year of Intervention: ***2012***
Client: ***Esselunga SpA***
Contractor: ***Moro Costruzioni***
Laying Company: ***ATS Srl***
Laid Materials: ***clinker tiles***
Mapei Co-ordinator: ***Massimiliano Nicastro, Mapei SpA (Italy)***

For further information visit www.mapei.it

Ocean Plaza
Kiev, Ukraine

PROJECT OVERVIEW

- Opened in 2012, Ocean Plaza is one of the largest shopping centre in Ukraine as well as in the Eastern Europe.
- Mapei Technical Service Department was contacted to help build the shelved fountain located in the entrance hall.

MAPEI SOLUTION

The structure of the fountain was skimmed with cement slurry mixed with Planicrete latex. The surface was then waterproofed with Mapelastic cementitious mortar, while the lamps and drainage outlets were waterproofed with Mapeproof Swell. The terraces that form the fountain were covered with glass mosaics bonded with Kerapoxy and Keralastic. To give an extra shine to the surface of the fountain, the joints were grouted with Kerapoxy Design decorative grout. Mapesil AC and Mapeflex PU45 were used to seal the joints. The natural stone floorings used to cover the three main shopping floors of the centre were protected against wear from intense traffic using Mapelux Opaque metallic wax.

Mapei Products

Keralastic, Kerapoxy, Kerapoxy Design, Mapeflex PU45, Mapelastic, Mapelux Opaque, Mapeproof Swell, Mapesil AC, Planicrete, Primer 3296, Pulicol 2000

These eco-sustainable products were developed by the Mapei R&D labs and have been certified according to the most severe official standards.

Period of Construction: ***2010-2012***
Period of Intervention: ***2011-2012***
Clients: ***TPS Nedvizhimost, UDP and K.A.N. Development***
Designer: ***TAM Pashenko***
Contractor: ***K.A.N. Stroi***
Mapei Distributor: ***Mega-Line LLC***
Mapei Co-ordinators: ***Mikhail Nikolaenko, Valentina Naumenko, Egor Rudenko and Marco Faccin, Mapei Ukraine LLC***

For further information visit www.mapei.ua

Shangri-La Hotel
Toronto, Canada

PROJECT OVERVIEW

- This luxurious 66 storey hotel is part of the Shangri-La Hotels chain and towers over the Financial District in Toronto.
- To install the fine oak floor, the client specified an eco-sustainable adhesive with soundproofing properties.

MAPEI SOLUTION

Before installing the wooden floor, the substrate was prepared by treating it with a coat of Primer L where the surface was not sufficiently flat and then by applying a layer of Novoplan 2 smoothing and leveling compound over more than 27,000 m^2 of surfaces. In those areas where the surface was not sufficiently level, it was smoothed again with Planirep FF. The use of the one-component adhesive Ultrabond Eco 995 allowed for perfect laying of the wooden floors while acting also as a soundproofing layer.

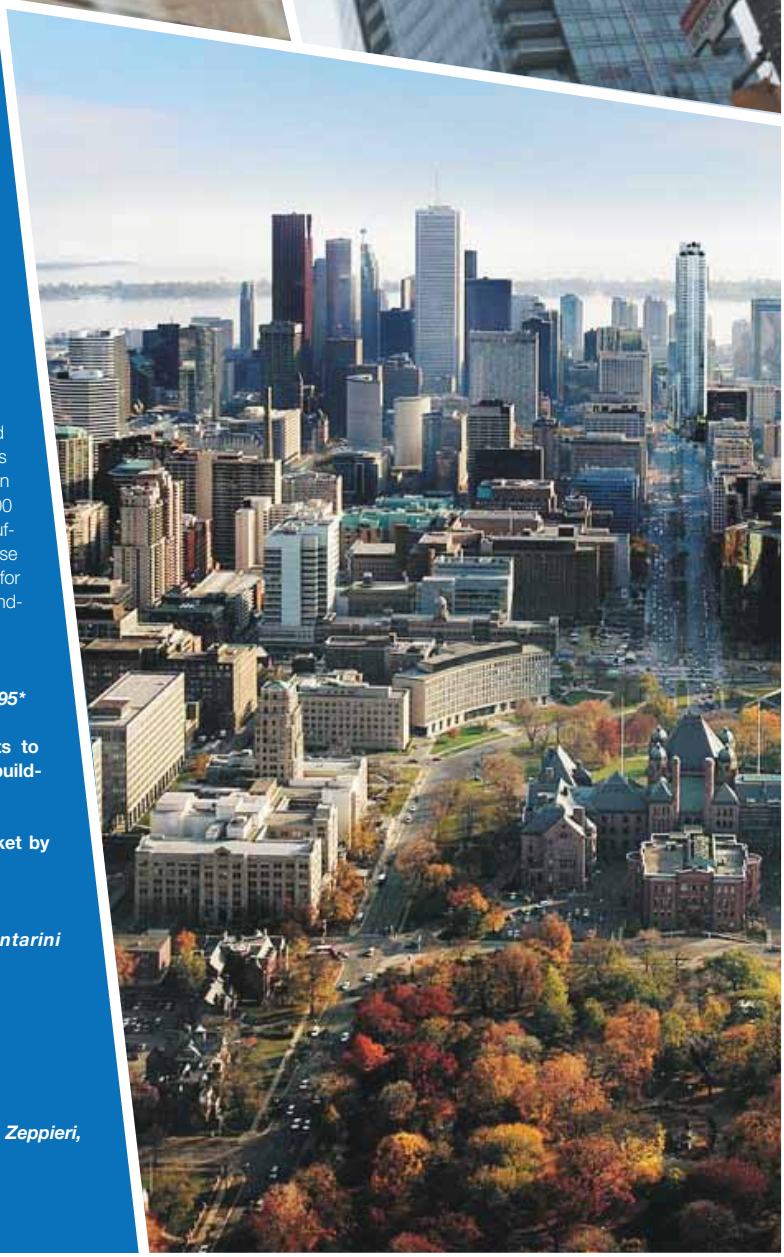
Mapei Products
Novoplan 2*, Primer L*, Planiprep FF*, Ultrabond Eco 995*

These are certified products which contribute points to achieve the LEED certification for eco-sustainable buildings.

***These products are distributed in the Canadian market by Mapei Inc. (Canada)**

Period of Intervention: ***2009-2012***
Designers: ***James K. M. Cheng Architects, Hariri Pontarini Architects***
Client: ***Shangri-La Hotels & Resorts***
Contractor: ***West Bank Projects Corporation***
Works Director: ***Bruce McCulloch***
Laying Company: ***Sterling Tile***
Laid Material: ***oak wooden floor planks***
Photos: ***Gabor Gyorgy***
Mapei Co-ordinators: ***Gaspare Clemenzi and Jason Zeppieri, Mapei Canada Inc.***

For further information visit www.mapei.ca



Max&Co. Boutique
Milan, Italy

PROJECT OVERVIEW

- This boutique in Corso Vittorio Emanuele II in Milan downtown features a large showroom on three floors, which was recently renovated.
- The project included the installation of industrial oak flooring in a herring-bone pattern covering a total surface area of 500 m^2. There was a very tight schedule to carry out the work in order to open the boutique on time.

MAPEI SOLUTION

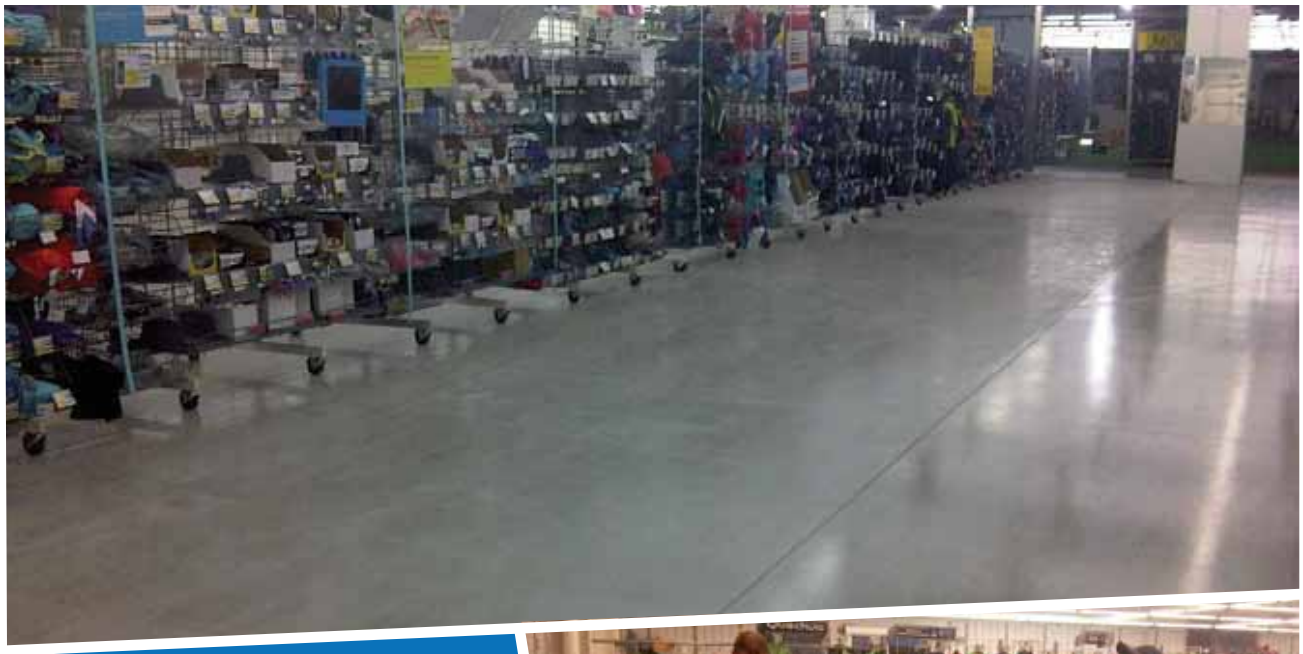
Mapei recommended Ultrabond Eco S945 1K one-component adhesive with very low emission level of volatile organic compounds to install the wooden floor. Water-based Ultracoat Premium Base undercoat and wear and abrasion-resistant Ultracoat High Traffic varnish were used to complete the job.

Mapei Products
Silwood, Ultrabond Eco S945 1K, Ultracoat High Traffic, Ultracoat Premium Base

These are eco-sustainable products developed by Mapei R&D labs. They have been certified according to the most sever official standards.

Year of Intervention: ***2012***
Client: ***Maxima***
Contractor: ***Kibea Parquet***
Works Director: ***Giuseppe Randazzo***
Laying Companies: ***Matteo Magri, Kibea Parquet***
Laid Material: ***oak wood floor***
Mapei Distributor: ***Munarini Srl***
Mapei Co-ordinators: ***Alessandro Bonacini, Rossi Carlo and Carlo Alberto Rossi, Mapei SpA (Italy)***

For further information see Realtà Mapei International n. 45 or visit www.mapei.it



Decathlon Store
Pau, France

PROJECT OVERVIEW

- Decathlon has been selling sporting goods at competitive prices for more than 30 years, initially only in France but now also abroad. Some of their outlets were recently renovated, including the one in Pau, a town located in the Pyrenees region.
- The new flooring had to meet the specific requirements of French norms and standards regarding mechanical strength, speed of installation, resistance to traffic and ease of cleaning.

MAPEI SOLUTION

The client's needs were fully met by using Ultratop System for self-levelling cementitious flooring.
The systems includes four phases: preparation of the substrate by shot-blasting or milling; priming with PRIMER SN followed by a fully broadcast of Quartz 1.2; applying ULTRATOP DCT with high resistance to abrasion and mechanical strength: finishing with Mapefloor Finish 630, two-component, protective acrylic filming agent in water dispersion for concrete, able to reduce liquids absorption of the ULTRATOP DCT surface.

Mapei Products
Primer SN, Quartz 1.2, Ultratop DCT*, Mapefloor Finish 630

These eco-sustainable products can contribute points to achieve the LEED certification for eco-sustainable buildings.

* **This product has been tailor-made for this customer by Mapei R&D labs.**

Year of Intervention: ***2012***
Works Direction: ***Pierre Fahy, Oxylane***
Contractor: ***Pique & Fils; Supervisor: Jean-Luc Lechartre***
Mapei Co-ordinators: ***Loïc Dubuis and Philippe Méric, Mapei France SA***

For further information visit www.mapei.fr

Kaleidoscope Shopping Centre
Moscow, Russian Federation

PROJECT OVERVIEW

- This enormous complex is to the north-west of Moscow and covers an area of 120,000 m². It has 150 shops, a multiplex cinema, an ice rink and numerous cafes and restaurants.
- Agglomerate stone was used for the flooring in black, orange, yellow and ivory shades. The intense pedestrian traffic forecast for all the areas called for the use of a specific adhesive.

MAPEI SOLUTION

In the areas with most traffic, where the risk of deformation to the stone was greatest, the flooring was installed with Keralastic two-component epoxy-polyurethane adhesive. In the other areas, Elastorapid cementitious adhesive was used.

Mapei Products
Elastorapid, Granirapid, Keralastic, Mapelastic, Mapefill, Mapeflex PU 50 SL, Ultracolor Plus, Ultraplan Eco

These CE-marked products were developed by Mapei R&D labs. They have been certified according to the most severe official standards. They are safe for the environment, the installers and the end users.

Period of Intervention: ***2008-2012***
Designer: ***Oncuoglu, SCG London***
Client: ***Zao "A.N.D. Korporation"***
Contractor: ***OOO Ant Yapi***
Works Directors: ***Boldyreva***
Laying Company: ***Emiko-Stroy***
Mapei Distributor: ***Albia***
Mapei Co-ordinators: ***Vladimir Kovalenko and Alexey Savonin, Zao Mapei (Russian Federation)***

For further information visit www.mapei.ru

Infrastructures

Bridges, viaducts, underground railway lines and dams: Mapei supplies specific products to build infrastructures all around the world. From special agents used for soil conditioning, a useful tool when excavating tunnels, to super-plasticising admixtures for concrete, and from waterproofing products to sealants. For each building site Mapei offers the most suitable product, together with constant on-site technical assistance.

Underground Railway Line 5
Milan, Italy

PROJECT OVERVIEW

- This prestigious ongoing project will include a total of 19 stations, 7 of which are already operational. The others will be completed in time for Expo 2015.
- To excavate and waterproof the tunnels and mix the concrete, reliable products were required that would allow this complex building site to be completed on schedule.

MAPEI SOLUTION

To condition the soil during excavation work Polyfoamer FP foaming agent and Mapedrill M3 polymer were used, while the concrete was prepared using super-plasticising admixtures from the Dynamon SX and Dynamon SR ranges. Mapeplan TU S synthetic waterproofing membranes were applied to guarantee perfect waterproofing.

Mapei Products

Dynamon SX 32, Dynamon SX 34, Dynamon SR1, Dynamon R914, Dynamon R912, Mapefer K1, Mapeplan TU S, Monofinish, Mapedrill M3, Mapegrout T60, Mapegrout LM 2K, Polyfoamer FP

These high-technology products were developed by the Mapei R&D labs.

Period of Intervention: ***on-going since 2007***
Client: ***Milan City Council***
Milan City Council Supervisor: ***Francesco Tarricone***
Works Direction: ***Stefano Perotti, Ingegneria SPM***
Safety Supervisor: ***Gabriella Ablondi, Ingegneria SPM***
Contractors: ***Astaldi SpA, Alstom Ferroviaria SpA, Ansaldobreda SpA, Ansaldo Trasporti Sistemi Ferroviari SpA, Azienda Trasporti Milanesi SpA***
Quality Supervisor for Astaldi: ***Nunzio Camarda***
Mapei Co-ordinators: ***Gianluca Bianchin, Alessandro Boscaro, Pietro Lattarulo and Massimo Seregni, Mapei SpA (Italy)***

For further information visit www.mapei.it

Legacy Way Tunnel
Brisbane, Australia

PROJECT OVERVIEW

- This 4.6 km long road tunnel connects the Western Freeway at Toowong with the Inner City Bypass at Kelvin Grove in Australia, easing the flow of road traffic.
- The project required the use of products specifically designed for underground construction works.

MAPEI SOLUTION

To inject the cementitious backfill grout into the lining of the tunnel by using Mapei admixtures such as Mapequick CBS System 1, Mapequick CBS System 3 and Mapebent CBS System 5. For waterproofing the Cross Passage, Mapelastic TU System was used, a highly flexible, spray-applied membrane with excellent tensile strength, chemical resistance and water tightness.

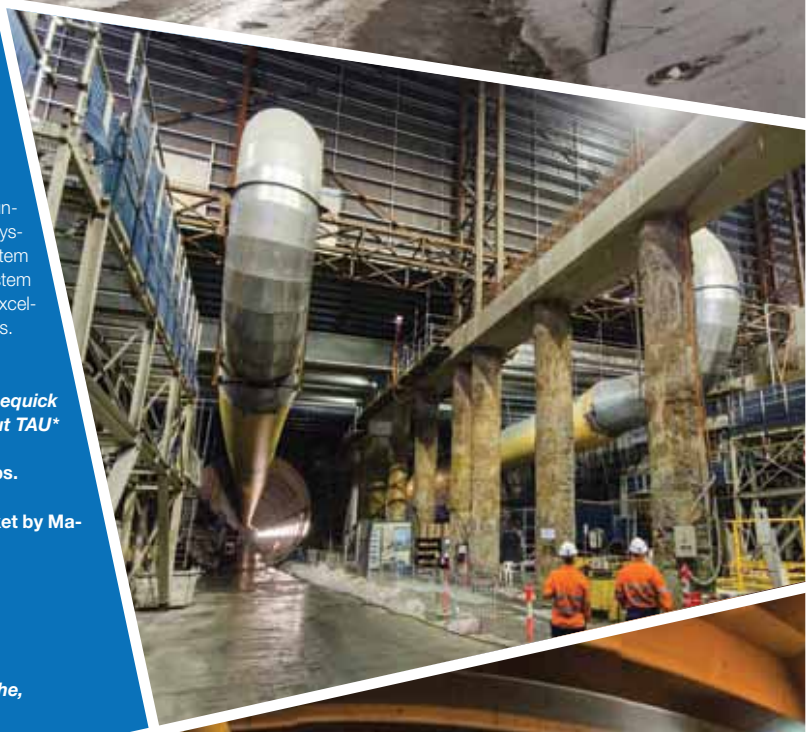
Mapei Products
Mapebent CBS System 5*, Mapelastic TU System, Mapequick CBS System 1*, Mapequick CBS System 3*, Mapegrout TAU*

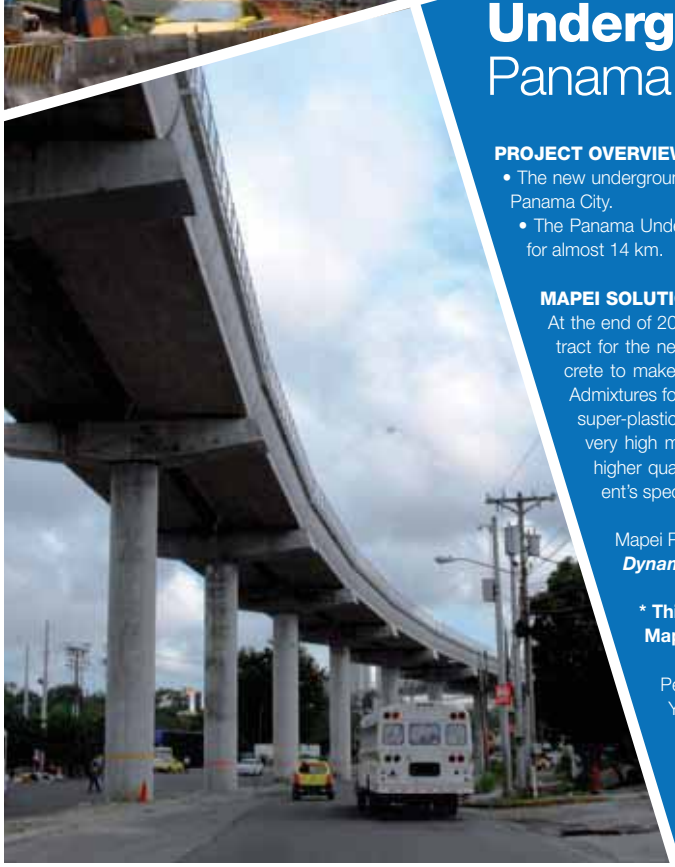
These products were developed by the Mapei R&D labs.

***These products are distributed in the Australian market by Mapei Australia.**

Period of Intervention: ***2012-2013***
Project Director: ***Fernando Fajardo***
Contractor: ***Transcity Joint Venture (TJV)***
Construction Manager: ***Matteo Ortu***
Mapei Co-ordinators: ***Robert Marks and Gilbert La Touche, Mapei Australia Pty Ltd***

For further information visit www.mapei.co.nz





Underground Railway Line 1
Panama City, Panama

PROJECT OVERVIEW

- The new underground railway system will be used to replace vehicular traffic in certain areas of Panama City.
- The Panama Underground Railway will be the first to be built in Central America and will run for almost 14 km.

MAPEI SOLUTION

At the end of 2011, the consortium of building companies that had been awarded the contract for the new underground railway line was looking for a new mix-design for the concrete to make the U-shaped beams for the viaducts along the line. The Mapei Panama Admixtures for Concrete Division proposed Dynamon SP 45/AC, a modified acrylic-based super-plasticiser for pre-cast concrete characterised by its low water/cement ratio and very high mechanical strength. Cement-based elements with increased durability and higher quality were manufactured using this admixture, in full compliance with the client's specifications.

Mapei Product
Dynamon SP 45/AC*

*** This product is manufactured and distributed in the Panama market by Mapei Construction Chemicals Panama S.A.**

Period of Construction: ***2011-2014***
Year of Intervention: ***2012***
Client: ***Consorcio Linea 1***
Mapei Co-ordinators: ***Fabián Giugno, Alexis Toribio, Rubén Rodriguez, Mapei Construction Chemicals Panama***

For further information visit www.mapei.com.pa

Underground Railway Line 4
Budapest, Hungary

PROJECT OVERVIEW

- The new underground railway line will connect the south-western part of the city (Buda) to the north-eastern part (Pest), thus extending the current network of three lines.
- Numerous interventions were required: from work on the underground concrete structures to the installation of mosaics on the walls and the laying of resin floors in the stations.

MAPEI SOLUTION

To install the mosaics, Mapei proposed Keraflex S1 cementitious adhesive with no vertical slip and Elastorapid highly deformable adhesive. The surfaces were levelled off with Mapegrout Gunite and Planitop Fast 330 mortars.

Mapei Products

Adesilex P9, Elastorapid, Eporip, Foamjet 260 LV, Idrosilex Pronto, Keracolor FF Flex*, Keraflex S1*, Lampocem, Mapecoat I 600 W, Mapecoat I 620 W, Mapecolor Paste, Mapefloor I 300 SL, Mapefloor I 914, Mapegrout Gunite, Mapefinish, Mapegel, Mapegrout Thixotropic, Mapegrout T40, Mapegrout T60, Mapesil AC, Monofinish, Stabilcem, Resfoam 1KM, Planitop 550, Plastimul 2K Plus, Primer SN, Planitop Fast 330, Ultracolor Plus, Ultratop

These CE-marked products were developed by Mapei R&D labs and feature high technology. They have been certified by internationally recognized institutions.

***These products are distributed in the Hungarian market by Mapei Kft.**

Period of Intervention: ***20012-2013***
Designers: ***Sporaarchitects Kft., Komoróczky Tamás designer, Palatium Stúdió Kft.***
Contractor: ***Swietelsy Magyarország Kft.***
Ceramic Coverings Laying Company: ***Ratskó-Bau Kft.***
Epoxy Flooring Laying Companies: ***Swietelsky Magyarország Kft. and Lukács és Társa Kft.***
Laid Materials: ***porcelain tiles, glass mosaics***
*Mapei Co-ordinators****: Garay Gergely, Bene Beatrix and Öryné Barna Mónika, Mapei Kft. (Hungary)***

For further information visit www.mapei.hu

Wastewater Recycling Plant
Tiszaújváros, Hungary

PROJECT OVERVIEW

- The wastewater recycling plant in Tiszaújváros, a city located in north-east Hungary, was built in 1976.
- Following an increase in the number of inhabitants in the area and the construction of new manufacturing plants, in 2011 it was decided to upgrade and waterproof the plant.

MAPEI SOLUTION

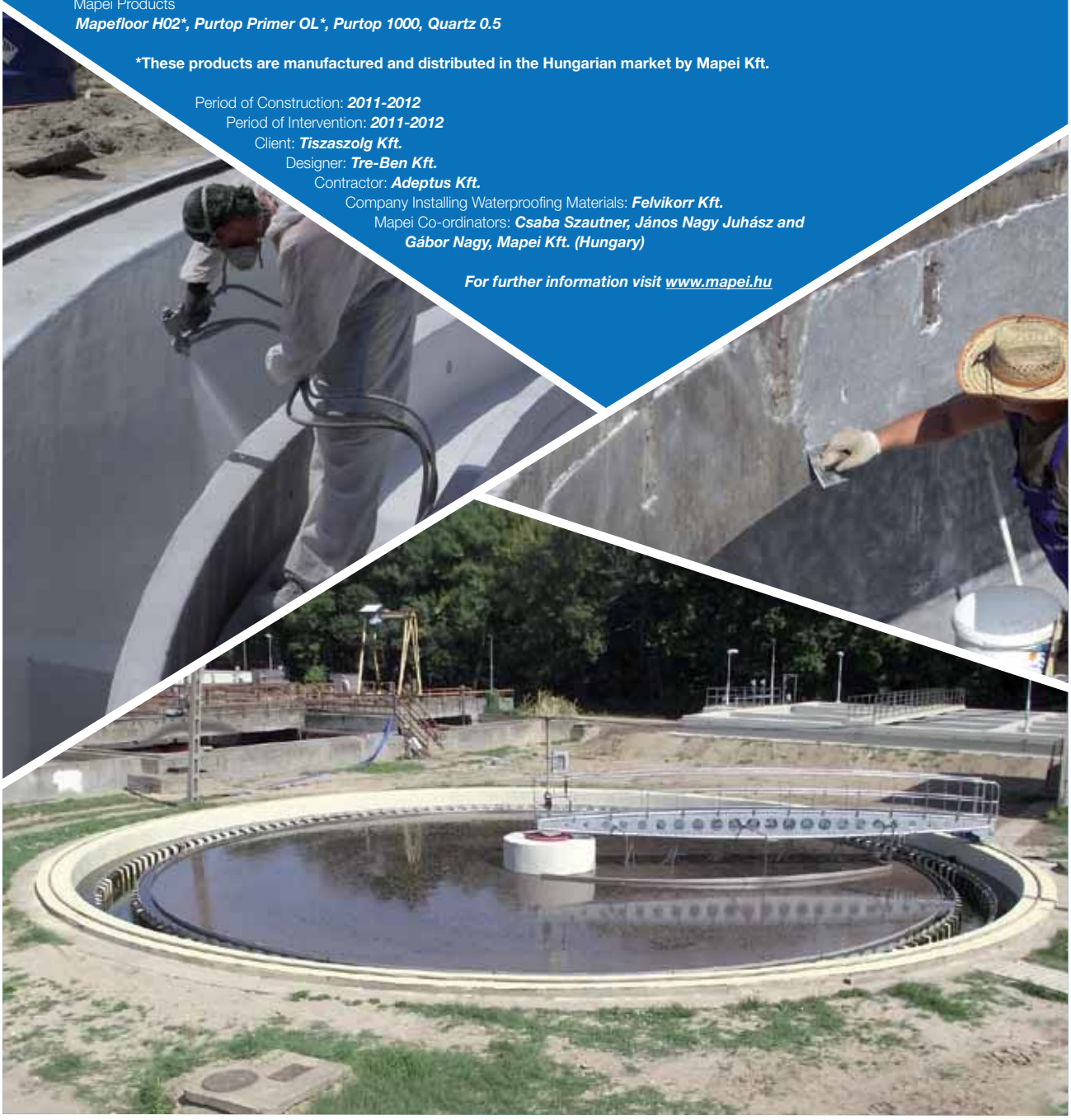
Mapei Kft.'s Technical Service Department recommended Purtop System Tank, a pure polyurea-based system applied by spray over structures using Purtop 1000 two-component, pure polyurea-based membrane. After carefully cleaning all the surfaces, two layers of Mapefloor H02 two-component general epoxy primer with great permeability were applied, with both layers sprinkled with Quartz 0.5 into the fresh resin. An industrial-grade, bi-mixer type pump was then used to apply a 1.5 mm thick coat of Purtop 1000 on the sides and a 2.5 mm thick coat on the bottom. The joints were sealed with Purtop Primer OL.

Mapei Products
Mapefloor H02*, Purtop Primer OL*, Purtop 1000, Quartz 0.5

***These products are manufactured and distributed in the Hungarian market by Mapei Kft.**

Period of Construction: ***2011-2012***
Period of Intervention: ***2011-2012***
Client: ***Tiszaszolg Kft.***
Designer: ***Tre-Ben Kft.***
Contractor: ***Adeptus Kft.***
Company Installing Waterproofing Materials: ***Felvikorr Kft.***
Mapei Co-ordinators: ***Csaba Szautner, János Nagy Juhász and Gábor Nagy, Mapei Kft. (Hungary)***

For further information visit www.mapei.hu



Dragon Bridge
Danang, Vietnam

PROJECT OVERVIEW

- This concrete bridge dominated by steel arches in the shape of a dragon is 666 m long. The size of the spans makes it one of the largest suspension bridges in the world.
- The concrete structure has to support the weight of the steel spans (almost 9,000 tons) and be adequately protected from harmful atmospheric agents and pollution.

MAPEI SOLUTION

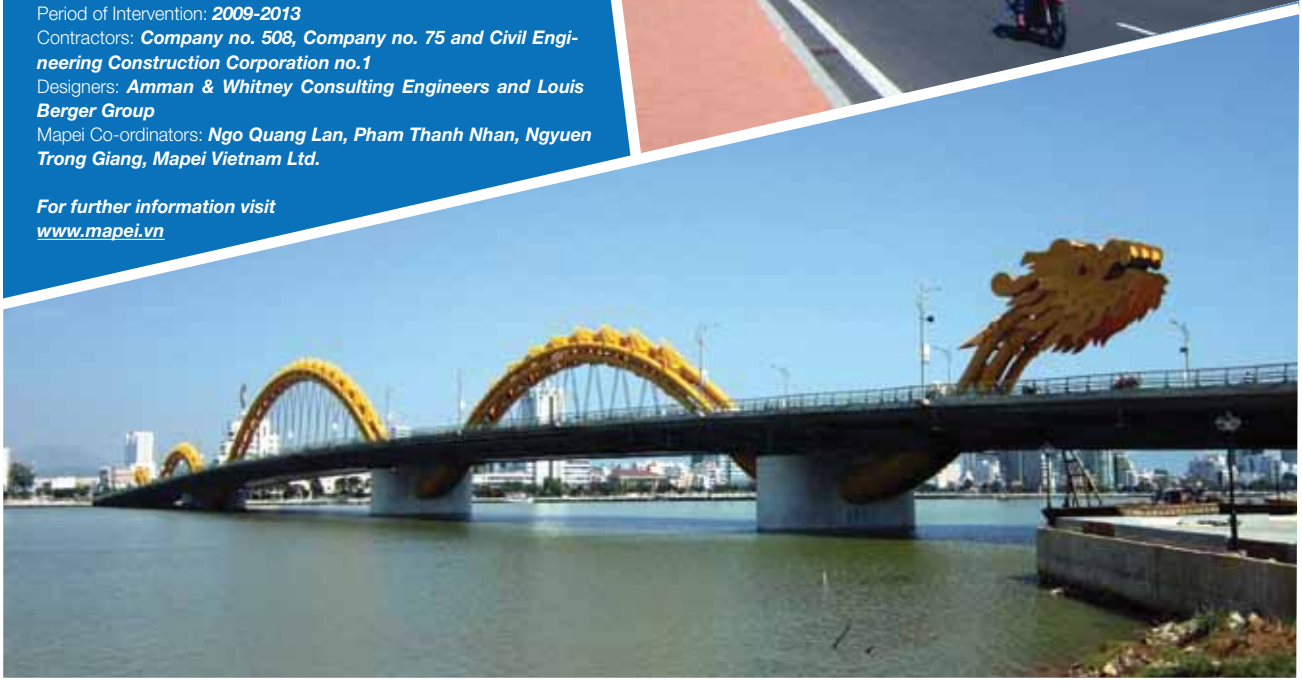
For the concrete structure, Mapei supplied the admixtures Dynamon SR1 for its high mechanical strength and Mapefluid R104 to extend the workability of concrete. On the walking sides of the bridge, Antipluviol protective paint resistant to ultra-violet rays was applied.

Mapei Products
Antipluviol, Dynamon SR1, Mapefluid R104

These products were developed by Mapei R&D labs with cutting-edge technologies.

Period of Intervention: ***2009-2013***
Contractors: ***Company no. 508, Company no. 75 and Civil Engineering Construction Corporation no.1***
Designers: ***Amman & Whitney Consulting Engineers and Louis Berger Group***
Mapei Co-ordinators: ***Ngo Quang Lan, Pham Thanh Nhan, Ngyuen Trong Giang, Mapei Vietnam Ltd.***

For further information visit
www.mapei.vn



Do Corgo Viaduct, Trasmontana Motorway
Vila Real, Portugal

PROJECT OVERVIEW

- The Transmontana motorway is a large infrastructure project which aims to improve communications in the northern part of Portugal. It is 186 km long and runs between the cities of Vila Real and Braganza.
- The Do Corgo viaduct is one of the concrete structures to be found along the motorway. It is 2,796 m long and has 42 spans and 41 piles approximately 130 m tall. Around 150 million tonnes of concrete were used to construct the viaduct.

MAPEI SOLUTION

The grinding admixture MA.G.A./C206 was used to prepare the cement used in the concrete production. A high performance grinding aid generally used to increase mill production and improve the cement's quality.

Mapei Product
MA.G.A./C206

This product was developed by Mapei R&D labs. It feature high technology and excellent performances.

Period of Construction: ***2009-2013***
Period of Intervention: ***2009-2013***
Client: ***Estradas de Portugal***
Contractor: ***CAET XXI-Construções ACE***
Laying Company: ***Betão Liz***
Mapei Distributor: ***Cimpor Cimentos de Portugal, SA***
Mapei Co-ordinator: ***Nelson Moreira, Lusomapei S.A. (Portugal)***
For further information visit www.mapei.pt

Sori Viaduct A12 Motorway
Genoa, Italy

PROJECT OVERVIEW

- Built between 1964 and 1965, the Sori Viaduct is on the Genoa-Sestri Levante stretch of the A12 motorway.
- For the work on the deteriorated surfaces the client specified the application of fibre-reinforced mortar.

MAPEI SOLUTION

Mapegrout Easy Flow one-component, fibre-reinforced, thixotropic mortar was used to repair the concrete structures. MapeWrap C Uni-AX high-strength carbon fibre fabric with high modulus of elasticity was chosen to repair the concrete elements damaged over the years by physical-mechanical action.

Mapei Products
Elastocolor, FRP System, Malech, Mapefer 1K, Mapegrout Easy Flow, Mapegrout LM 2K, Mapegrout SV Fiber, Mapesil AC, MapeWrap C UNI-AX

These products were developed by Mapei R&D labs and have been certified by internationally recognized institutions. They are safe for the environment, the installers and the end users

Period of Construction: ***1964-1965***
Period of Intervention: ***2012-2013***
Designer: ***Spea***
Client: ***Autostrade per l'Italia (Italian Motorways Authority)***
Works Director: ***G. Melandri***
Contractors: ***Tollot Srl and Antonini Srl***
Mapei Co-ordinator: ***Bruno Zamorani, Mapei SpA (Italy)***

For further information visit www.mapei.it

Linth-Limmern Power Plant
Linthal, Switzerland

PROJECT OVERVIEW

- The Linth-Limmern power plant in the Canton of Glarus uses water from Mittsee and Limmernsee Lakes to generate electrical energy. The amount of electrical energy generated is modulated by pumping water between one lake and another.
- A new dam and a large underground facility are under construction so that water can be pumped from Limmernsee Lake to Mitsee Lake, which is situated at a higher level.

MAPEI SOLUTION

For this large building site, for which around 500,000 m^3 of concrete will be required, Mapei has supplied various admixtures for concrete, such as the aerating product Mapeair AE2, the super-plasticiser Mapefluid N100 and the retardant Mapetard D.

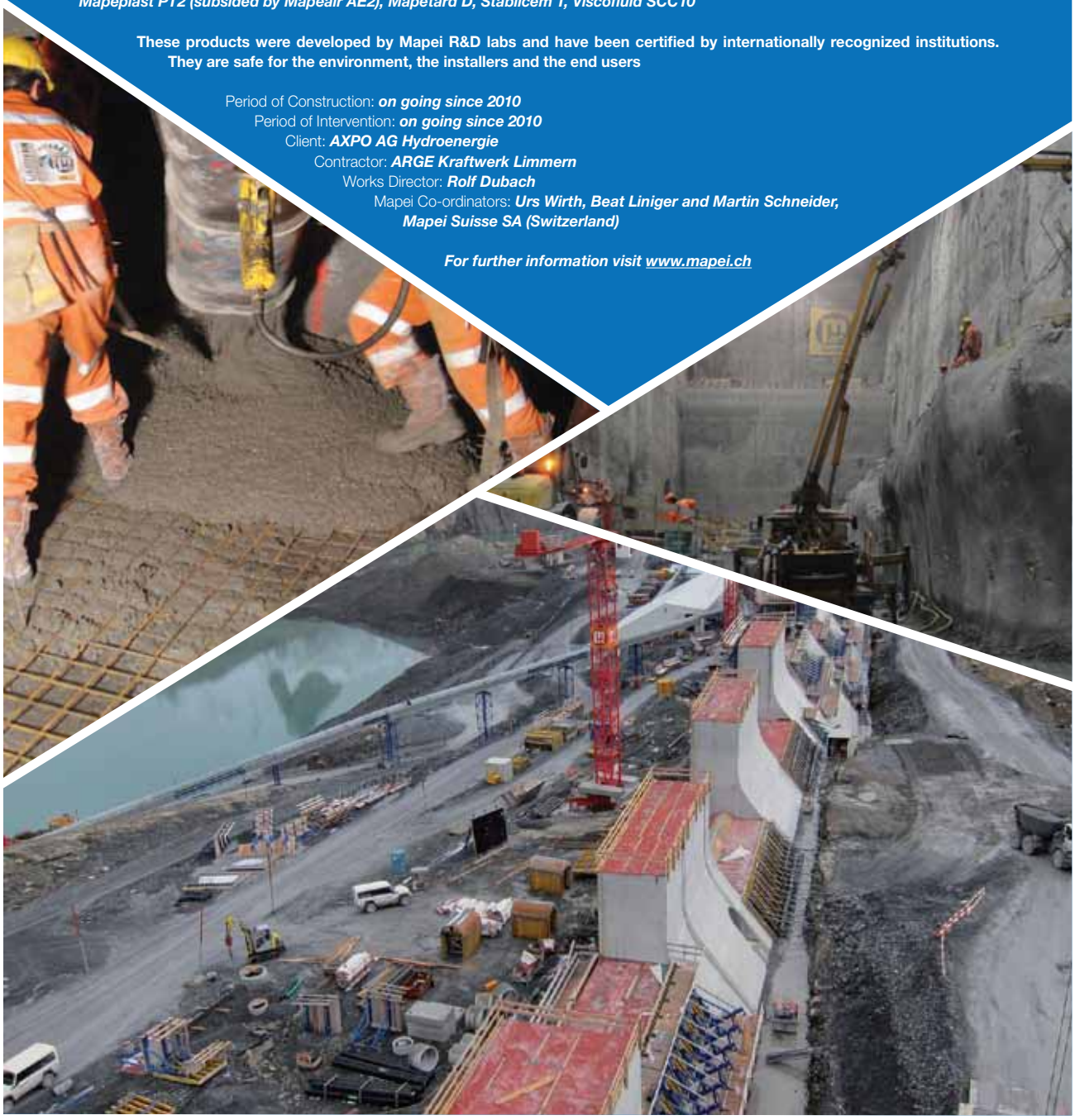
Mapei Products

Dynamon SX 14, Mapecure SRA, Mapecure E30, Mapefluid N100, Mapequick AF 1000, Mapegrout Thixotropic, Mapeplast N100, Mapeplast PT2 (subsided by Mapeair AE2), Mapetard D, Stabilcem T, Viscofluid SCC10

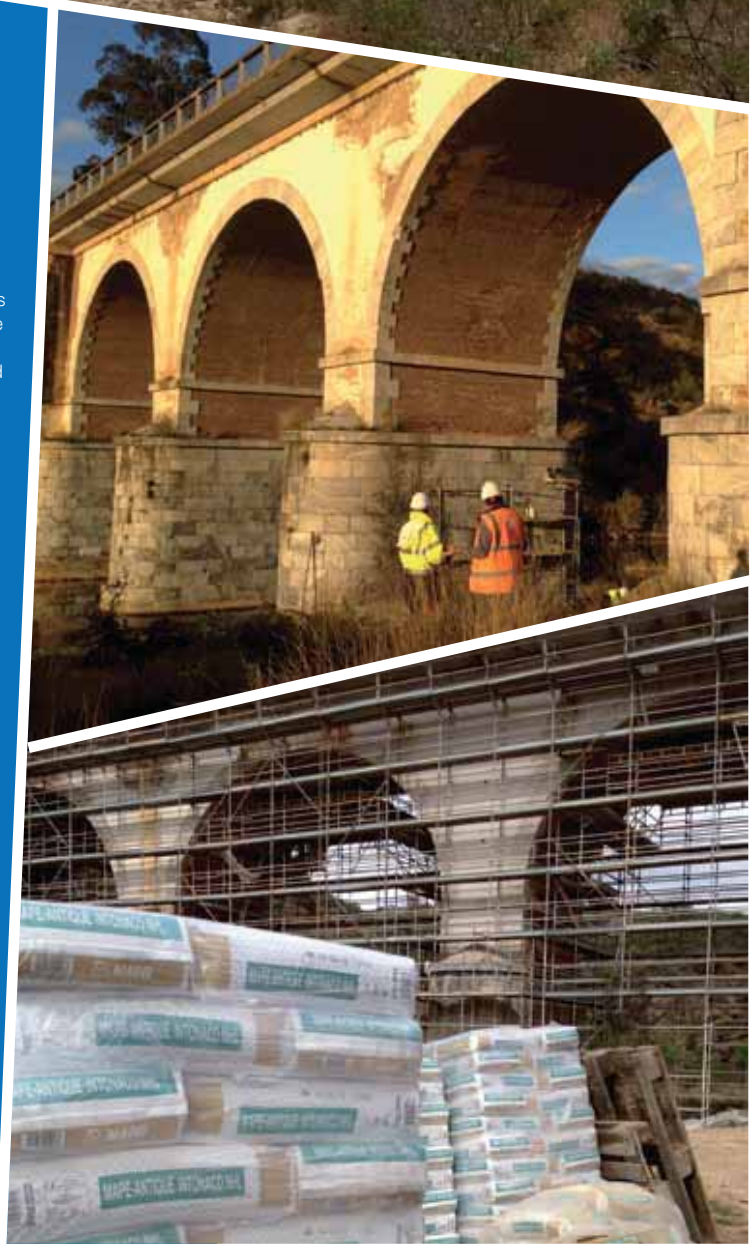
These products were developed by Mapei R&D labs and have been certified by internationally recognized institutions. They are safe for the environment, the installers and the end users

Period of Construction: ***on going since 2010***
Period of Intervention: ***on going since 2010***
Client: ***AXPO AG Hydroenergie***
Contractor: ***ARGE Kraftwerk Limmern***
Works Director: ***Rolf Dubach***
Mapei Co-ordinators: ***Urs Wirth, Beat Liniger and Martin Schneider, Mapei Suisse SA (Switzerland)***

For further information visit www.mapei.ch



Ribeira de Terges e Cobres Bridge
Mértola, Portugal



PROJECT OVERVIEW

- Built in 1861 and then widened in 1963, the Ribeira de Terges e Cobres bridge is 115.6 m long and is supported by five stone and brick arches.
- The aim of the upgrade was to repair the damaged areas and strengthen the structure. The client specified products specific for treating structures of historical and artistic interest.

MAPEI SOLUTION

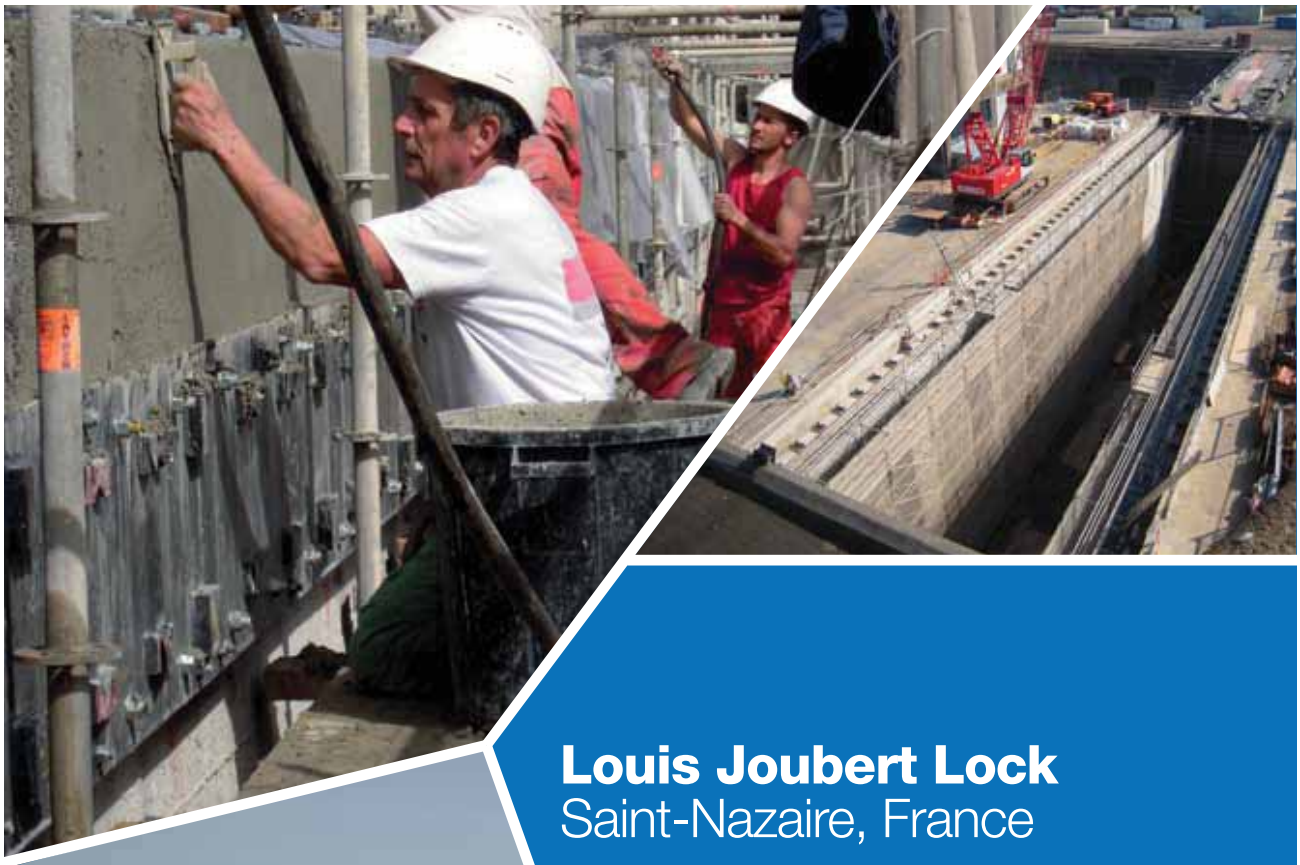
To consolidate the stone and brickwork arches and masonry Mapei proposed Mape-Antique I binder, particularly suitable for structures of historical and artistic interest. The deteriorated masonry was renovated using Mape-Antique Rinzaffo and Mape-Antique MC mortars. The substrates were strengthened with Mapegrid G120 glass fibre mesh.

Mapei Products
Mape-Antique I, Mape-Antique Rinzaffo, Mape-Antique MC, Mapegrid G120, Mape-Antique Intonaco NHL

These products were developed by Mapei R&D labs and feature high technology. They have been certified by internationally recognized institutions. They can contribute points to obtain the LEED certification for eco-sustainable buildings

Year of Construction: ***1861***
Period of Intervention: ***February 2012-October 2012***
Designer: ***PC & A***
Client: ***Estradas de Portugal (Portuguese Highway Authority)***
Contractor: ***Telhabel S.A.***
Mapei Distributor: ***Macominho***
Mapei Co-ordinator: ***Daniel Moreira, Lusomapei S.A. (Portugal)***

For further information visit www.mapei.pt



Louis Joubert Lock
Saint-Nazaire, France

PROJECT OVERVIEW

- This lock was built in the 1930's to give access to the Loire River and hence the Atlantic Ocean for ships of the biggest size, from the port of Saint-Nazaire.
- In 2006 it was decided to replace the downstream gate at the entrance to the basin, which is 52 m long and 10 m wide. The rails on the downstream gate were also replaced. Products able to resist the severe conditions of this marine environment were specified.

MAPEI SOLUTION

To fix the new rails in place Mapei proposed Mapefill F, a fluid mortar for anchoring and sealing. Where required, the concrete was renovated using Mapegrout Gunite and Mapegrout Gunite BS 8 mortars which are resistant to sulphates and seawater.

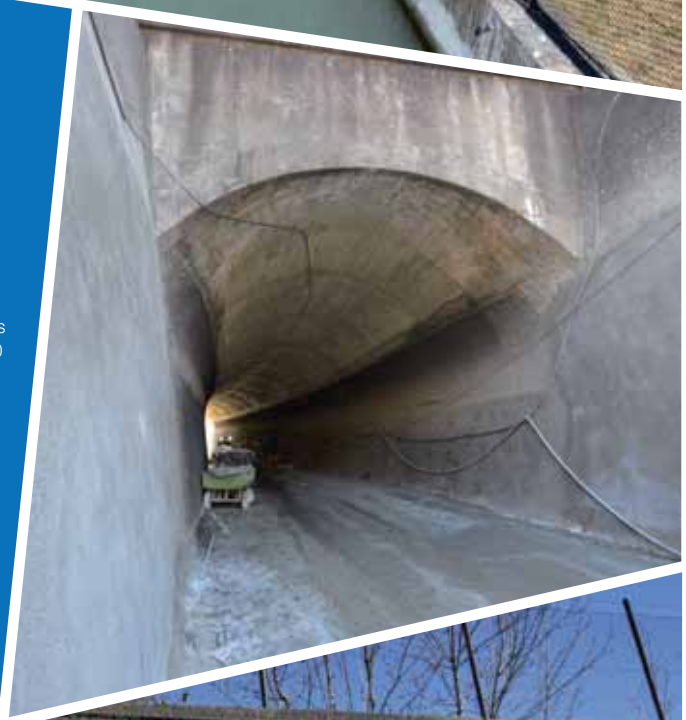
Mapei Products
Mapefill F, Mapegrout Gunite, Mapegrout Gunite BS 8

These CE-marked products were developed by Mapei R&D labs and have been certified by internationally recognized institutions

Period of Construction: ***1930's***
Period of Intervention: ***2011-2012***
Client: ***Nantes-Saint-Nazaire Port***
Contractor: ***ETPO, Agence Nantes TP***
Mapei Co-ordinators: ***Jérôme Darras and Christophe Decaen, Mapei France SA***

For further information visit www.mapei.fr

Water Canal Saint Clair Power Station
Chatillon, Italy



PROJECT OVERVIEW
- Built in 1950 in the town of Chatillon, the Saint Clair Power Station uses water from the nearby Dora Baltea river and generates an average of 180 GWh per year.
- Portions of the concrete along the 13 km, free-surface canal were badly deteriorated and needed to be waterproofed.

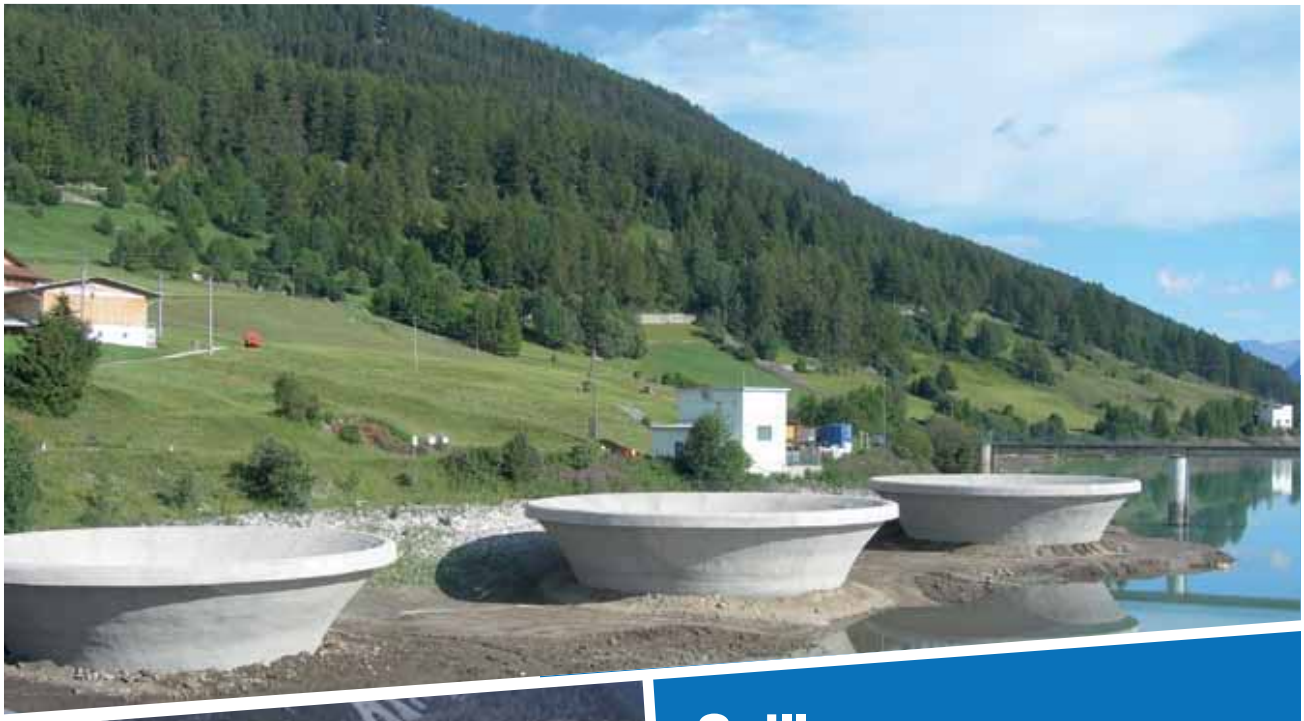
MAPEI SOLUTION
Mapei recommended the use of Mapegrout Easy Flow fibre-reinforced, sulphate-resistant thixotropic mortar and Stabilcem super-fluid, expansive cementitious binder to repair the concrete. To waterproof the structure Mapefoam cord was inserted in the joints, which were then sealed with Primer AS and Mapeflex PU45 flexible polyurethane sealant.

Mapei Products
Mapegrout Easy Flow, Mapeflex PU45, Primer AS, Mapefoam, Stabilcem

These certified products provide eco-sustainable solutions, which can contribute points to obtain the LEED certification.

Year of Construction: ***1950***
Year of Intervention: ***2013***
Client: ***Compagnia Valdostana delle Acque CVA SpA***
Contractors: ***Marietta SpA and Soda Costruzioni SpA***
Mapei Distributors: ***Pluriedil, Fama and Effegi***
Mapei Co-ordinator: ***Renato Botteri and Vito Pedretti, Mapei SpA (Italy)***

For further information visit www.mapei.it



Spillways
San Valentino Dam
Glurns, Italy

PROJECT OVERVIEW

- Completed in 1949, it was the first large soil dam constructed in Italy. It has an artificial storage basin that is regulated according to seasonal changes and uses water mainly from the River Adige.
- Due to water seepage, three calyx-shaped spillways were showing signs of wear. It was necessary to repair the parts above the water level and waterproof them.

MAPEI SOLUTION

The three spillways, which are partially exposed above ground, are surrounded by the artificial lake built for the dam. Sections of the structure had to be reintegrated with Mapegrout Easy Flow GF and with Mapegrout Easy Flow mixed with Mapecure SRA, while the cracks were sealed monolithically with Epojet LV.

The last step was to apply Mapelastic Guard to form a waterproof coating. Structural strengthening was also carried out using the MapeWrap composite system.

Mapei Products

Epojet LV, Mapecure SRA, Mapegrout Easy Flow, Mapegrout Easy Flow GF, Mapegrout Hi-Flow, Mapelastic Guard, MapeWrap 11, MapeWrap 31, MapeWrap C UNI-AX, MapeWrap Primer 1

These eco-sustainable products were developed by Mapei R&D labs and certified by internationally recognized institutions.

Year of Construction: ***completed in 1949***
Year of Intervention: ***2012***
Client: ***Seledison SpA***
Works Direction: ***Mauro Scienza, Hydros Srl***
Contractor: ***Mosconi SpA***
Mapei Co-ordinators: ***Stefano Barachetti, Vito Pedretti, Giulio Morandini and Pasquale Zaffaroni, Mapei SpA (Italy)***

For further information visit www.mapei.it

Christchurch Northern Motorway
New Zealand

PROJECT OVERVIEW

- The Christchurch Northern Motorway is an important motorway link in the North of New Zealand.
- The project involved providing anti-earthquake safety systems for three bridges crossing the motorway. The intervention involved work on the 21 load-bearing piles, each one 6 m tall by 3 m wide.

MAPEI SOLUTION

For the seismic upgrading of the structures, Mapei proposed MapeWrap C UNI-AX, particularly suitable for repairing reinforced concrete elements. Over the MapeWrap system, a layer of Mapelastic Smart cementitious mortar ensured protection against the action of aggressive agents.

Mapei Products
Adesilex PG1, Mapegrout T60, Mapelastic Smart, Mapetex Sel, MapeWrap C UNI-AX, MapeWrap Primer 1 SP*, Mapewrap 31 SP*

These products were developed by Mapei R&D labs with cutting-edge technologies and have been certified by internationally recognized institutions. They are safe for the environment and the end-users.

***These products are distributed in the New Zealand market by Mapei New Zealand.**

Designer: ***New Zealand Ministry of Works***
Period of Intervention: ***2012-2013***
Client: ***New Zealand Transport Agency (NZTA)***
Contractors: ***Fulton Hogan Civil South Ltd***
Works Direction: ***Opus International Consultants Limited***
Mapei Co-ordinator: ***Darren Ballantine, Mapei New Zealand***

For further information visit www.mapei.co.nz

Bridge in Vado Ligure
Savona, Italy

PROJECT OVERVIEW

- This bridge crosses the Quiliano River and connects the cities of Savona and Vado Ligure in Northern Italy. It was widened in 1992 to improve the flow of water from the mountains down to the sea.
- Waterproofing work was required for the new section of the bridge.

MAPEI SOLUTION

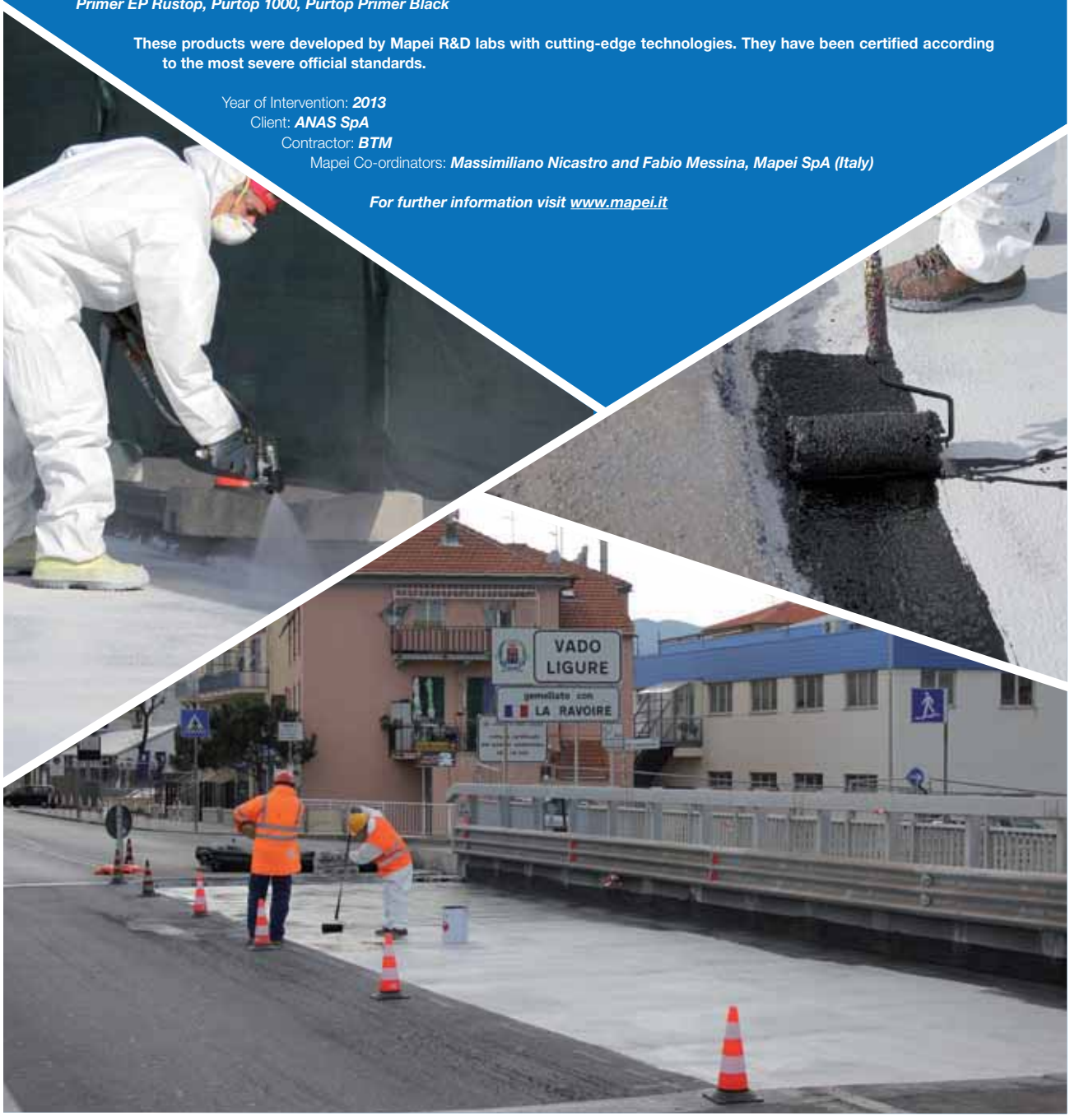
The company carrying out the work specified a high-performance waterproofing system that prevented slip in the top layer of asphalt. Since it involved a road surface, Mapei proposed the pure polyurea-based Purtop 1000 membrane. It allows the waterproofing of several kinds of surfaces to be restored. It may be installed quickly and does not generate overloads on load-bearing structures. Asphalt was then cast over the system and, in just a few hours, the road was re-opened to traffic.

Mapei Products
Primer EP Rustop, Purtop 1000, Purtop Primer Black

These products were developed by Mapei R&D labs with cutting-edge technologies. They have been certified according to the most severe official standards.

Year of Intervention: ***2013***
Client: ***ANAS SpA***
Contractor: ***BTM***
Mapei Co-ordinators: ***Massimiliano Nicastro and Fabio Messina, Mapei SpA (Italy)***

For further information visit www.mapei.it



Chhatrapati Shivaji International Airport
Mumbai, India

PROJECT OVERVIEW

- Extending over an area of 5.9 km^2, the Chhatrapati Shivaji International Airport is the largest in the whole of India. In 2011 the Indian Government decided to renovate 50% of the airport.
- To install the granite flooring, the client requested a high performance adhesive system suitable for large sized natural stone slabs and for flooring subjected to intense traffic.

MAPEI SOLUTION

Keraflex Maxi S1 and Keralastic T were used to install the granite; Mapelastic and Mapenet 150 to waterproof the water elements; Eporip and Ultraplan Eco to smooth over the substrates; Kerapoxy to grout the joints.

Mapei Products
Eporip, Keraflex Maxi S1, Keralastic T, Kerapoxy, Mapelastic, Mapenet 150, Ultraplan Eco

These products have been certified by internationally recognized institutions as safe eco-sustainable solutions for the environment and the end users.

Year of Intervention: ***2011***
Client: ***Mumbai International Airport Private Limited (MIAL)***
Designer: ***Owings & Merrill LLP***
Contractor: ***Larsen and Toubro Ltd.***
Laying Companies: ***Shah Granite, Plus Systems, Waterman, SMG Inter Decor, Rajasthan Marbles, AES***
Laid Material: ***granite***
Mapei Co-ordinators: ***Lorenzo Pastore, Mapei SpA (Italy); Abhijit Dutta, Meher Mukherjee and Alok Deshpandey, Mapei Construction Products India pvt Ltd***

For further information visit
www.mapei.co.in

Terminal A-Plus, Frankfurt Airport
Frankfurt, Germany

PROJECT OVERVIEW

- Six million more passengers are expected every year in the skies over Frankfurt with the new A-Plus gate, an extension to the existing Terminal 1.
- Granite slabs that have to resist intense traffic on a daily basis were installed on the floors of the terminal. An eco-sustainable adhesive suitable for natural flooring was required for this job.

MAPEI SOLUTION

The substrates were prepared with Primer G, primer in water dispersion with a very low VOC emission level. The granite flooring was installed with Mapestone 1 adhesive, specially developed for bonding stone. The joints were grouted with Ultracolor Plus.

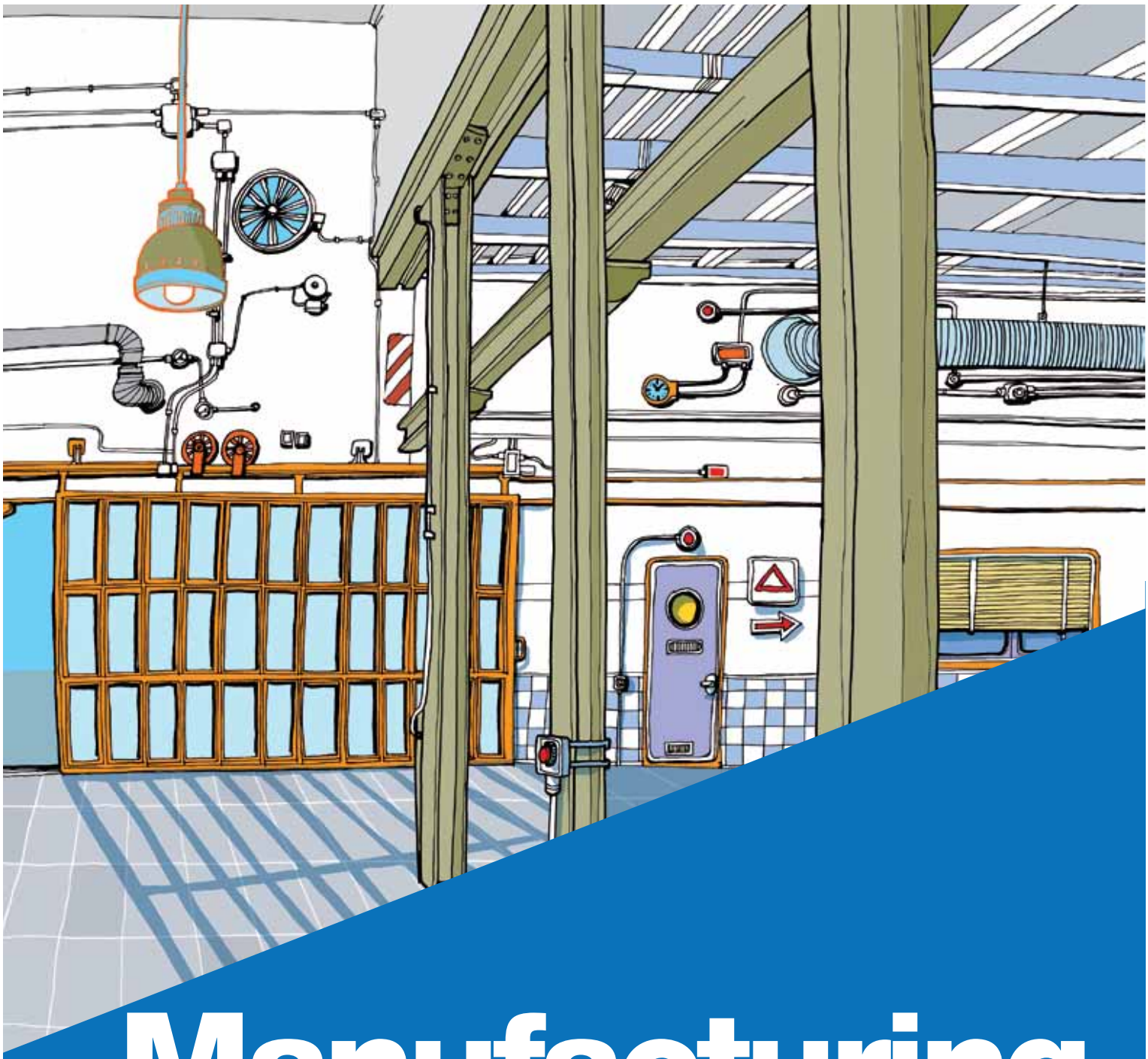
Mapei Products
Primer G, Mapestone 1*, Ultracolor Plus

These are eco-sustainable products, with low emission level of volatile organic compounds. They were developed by Mapei R&D labs and have been certified by the German Institute GEV.

***This product is distributed in the German market by Mapei GmbH (Germany)**

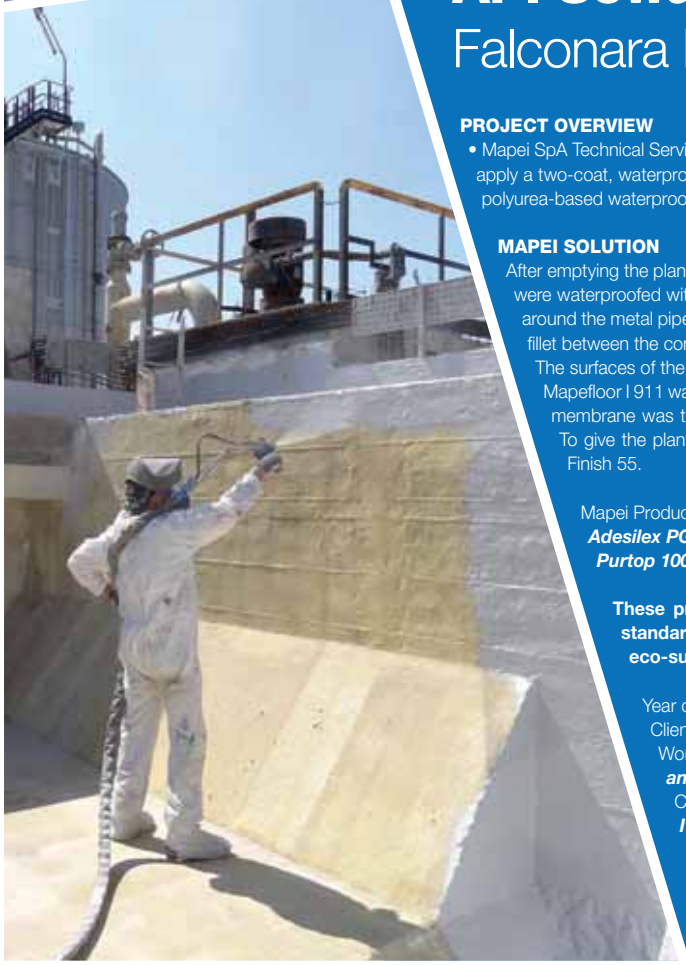
Period of Intervention: ***2011-2012***
Designers: ***gmp Architekten***
Client: ***Fraport AG***
Contractor: ***Fraport AG***
Laying Company: ***Czapla Naturstein GmbH***
Laid Materials: ***various types of Chinese granite***
Mapei Distributor: ***Anton Schneider 5 GmbH***
Mapei Co-ordinator: ***Walter Mauer, Mapei GmbH (Germany)***

For further information visit www.mapei.de



Manufacturing plants

Floor resistance to abrasion, heavy loads and chemical products, high levels of hygiene, safety for users: these are just some of the characteristics required for production plants. Mapei offers all this and more with the maximum respect for the environment, thanks to a complete range of products for sealing, waterproofing and covering surfaces.



API Sewage Plants
Falconara Marittima, Italy

PROJECT OVERVIEW

• Mapei SpA Technical Service Department was contacted to help seal some of the structural joints and apply a two-coat, waterproof coating for the two sewage plants at the API Refinery. Purtop 1000 pure polyurea-based waterproofing membrane was recommended.

MAPEI SOLUTION

After emptying the plants, the internal surfaces were cleaned by sand-blasting. The structural joints were waterproofed with Mapeband TPE tape bonded with Adesilex PG4. Protection was applied around the metal pipe-work passing through the sides of the plants using Adesilex PG4 to form a fillet between the concrete and the pipes.

The surfaces of the plants were initially treated with Triblock P primer for damp substrates. Mapefloor I 911 was applied with a roller and Quartz 0.5 was sprinkled thereupon. Purtop 1000 membrane was then applied using an industrial-grade, high-pressure, bi-mixer type pump. To give the plants a more attractive finish, the exposed parts were coated with Mapefloor Finish 55.

Mapei Products

Adesilex PG4, Mapeband TPE, Mapefloor Finish 55, Mapefloor I 911, Triblock P, Purtop 1000

These products have been certified according to the most severe official standards. They can contribute points to obtain the LEED certification for eco-sustainable buildings.

Year of Intervention: ***2013***

Client: ***API Refinery***

Works Directors: ***Francesco Lion, Maurizio Donzelli, Simone Margiotta and Stefano Tarini, Gruppo API***

Contractors: ***Cimini Group Michela Costruzioni Srl and Resinsystem Italia***

Mapei Co-ordinators: ***Riccardo Chiodoni and Francesco Di Carlo, Mapei SpA (Italy)***

For further information visit www.mapei.it

VAT Production Facility
Batu Kawan, Malaysia

PROJECT OVERVIEW

- The Swiss company VAT recently opened a new facility in Malaysia to produce vacuum valves and vacuum components.
- The project involved the construction of a two-storey building for the offices and a single storey building where the actual production is carried out. Non-slip flooring resistant to intense traffic was required.

MAPEI SOLUTION

A layer of Triblock TMB epoxy-cementitious coating applied over Mapecoat I 600 W epoxy primer and then sealed with epoxy Primer SN was installed on the concrete substrate as a moisture barrier. A coat of Primer SN broadcast with graded quartz sand was then applied before Mapefloor I 302 SL self-levelling epoxy formulate was laid. While still fresh the surface was sprinkled over with emery aggregates to give it a speckled look. Finishing was completed with the application of Mapefloor I 910 epoxy binder followed by Mapefloor Finish 52 W , a low yellowing, semi-opaque, polyurethane coating.

Mapei Products
Mapecoat I 600 W, Mapefloor I 302 SL, Mapefloor I 910, Mapefloor Finish 52 W, Triblock TMB, Primer SN

These eco-sustainable products were developed by the Mapei R&D labs.

Client: ***VAT Manufacturing Malaysia Sdn Bhd***
Designer: ***BYG Architecture Sdn Bhd***
Contractor: ***Daya CMT Sdn Bhd***
Floor Laying Company: ***Adept Technical Services Sdn Bhd***
Mapei Co-ordinators: ***Elttva Leona, Mapei Malaysia Sdn Bhd***

For further information visit www.mapei.com.my

Pentashinou Irrigation Basin
Larnaca, Cyprus

PROJECT OVERVIEW

- A basin was built a number of years ago in Larnaca in the Greek part of Cyprus to irrigate a vast area of agricultural land.
- Over the years, the joints in the basin had expanded and water was leaking from it. The requalification project included waterproofing of all the joints in the basin.

MAPEI SOLUTIONI

The basin was emptied and all the areas in poor condition were removed mechanically. Special formwork was used to reintegrate material in the areas around the joints. They were waterproofed using Mapeband PE 120 PVC tape bonded with Kerapoxy P anti-acid epoxy mortar. The 1.5 cm gap between the formwork and the original cement structure was filled by pouring in Mapefill fluid anchoring mortar. 20 mm diameter Mapefoam extruded foam polyethylene cord was inserted directly in the joints, which were then sealed with Mapeflex PU45.

Mapei Products
Mapefill, Kerapoxy P, Mapeband PE, Mapefoam, Mapeflex PU 45

These certified products have been certified by internationally recognized institutions. They can contribute points to obtain the LEED certification for eco-sustainable buildings.

Year of Intervention: ***2013***
Client: ***Cyprus Ministry of Agriculture***
Contractor: ***G&M Charalambous***
Mapei Distributor: ***Gevo Ltd***
Mapei Coordinators: ***Fabio Fenech, John Koropoulis and Savvas Makriyiannis, Mapei Hellas SA (Greece)***

For further information visit www.mapei.gr

Schwenk Zement KH Cement Plant
Karlstadt, Germany

PROJECT OVERVIEW

- This production facility is owned by Schwenk Zement KG. Thanks to its vicinity to the River Main, it is one of the most important cement plants in the region and, over the years, has been constantly modernised to become one of the most advanced in Germany.

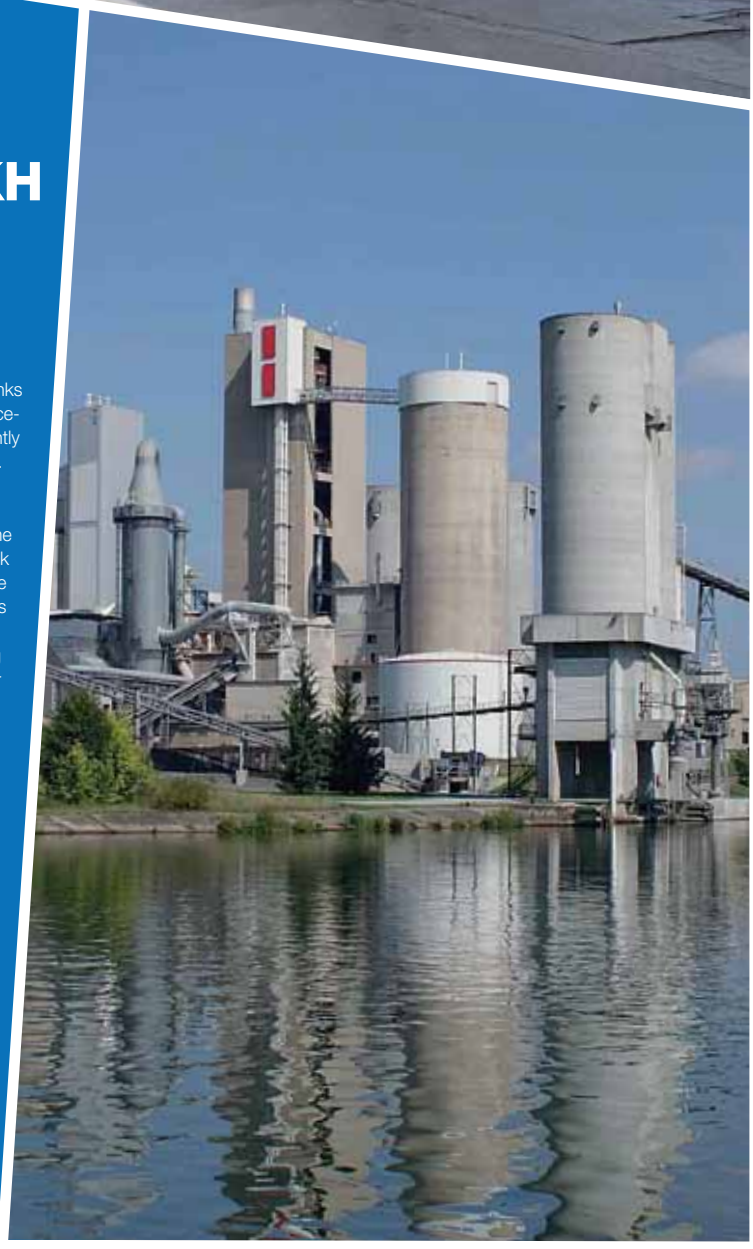
MAPEI SOLUTION

Mapei GmbH (Germany) designed a grinding aid used during the grinding process of minerals and raw materials at the Schwenk Zement plant. It also had to be suitable for the properties of the clinker and able to improve the performance of some of the types of cement produced there.
Schwenk Karlstadt successfully employed a Mapei grinding aid from the MA.G.A. line to increase the production rate of their mills, control the granulometric curves of the finished product and eliminate the pack-set problems.

Mapei Product
Mapei grinding aid from the MA.G.A. line

Year of Supply: ***2012***
Client: ***Schwenk Zement KG***
Mapei Co-ordinator: ***Bastian Raab, Mapei GmbH (Germany)***

For further information visit www.mapei.de



Volvo Coach Manufacturing Plant
Wrocław, Poland

PROJECT OVERVIEW

- The production lines at the Volvo coach manufacturing plant in Wrocław are used to make tourist coaches and buses for town and city transport use.
- The flooring in the assembly department needed to be replaced. Flooring with resistance to abrasion, chemical agents and heavy loads was specified.

MAPEI SOLUTION

The first step was to remove the old resin and cementitious floorings. After cleaning all the surfaces Primer SN was applied and Quartz 0.5 was sprinkled over while the substrate was still wet. A 2 mm thick coat of Mapefloor I 300 SL two-component epoxy formulate mixed with the specified colour of Mapecolor Paste was then applied. Quartz 0.25 was again sprinkled over it while the surface was still wet. The joints were sealed with Mapeflex PU 45.

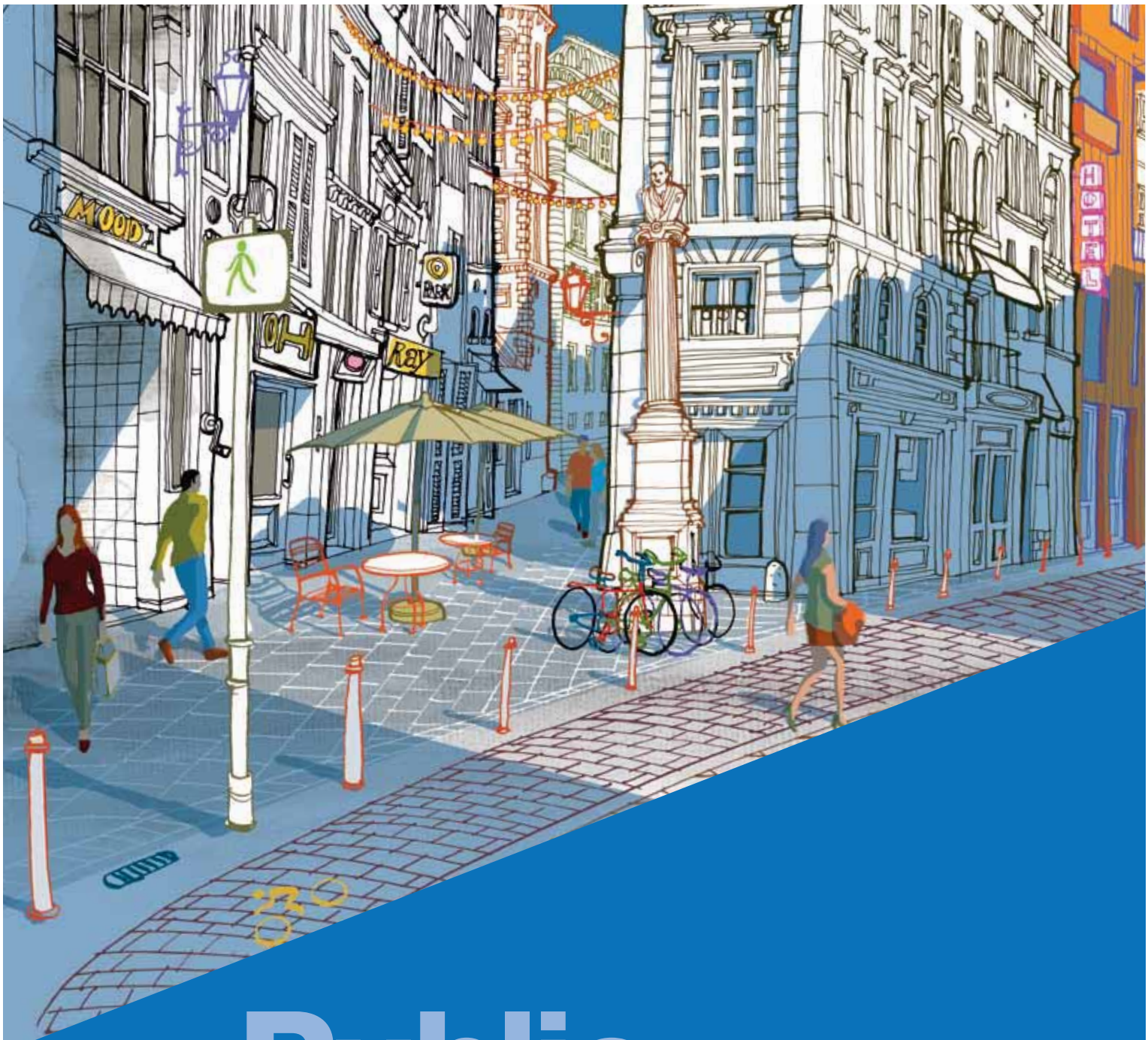
Mapei Products

Mapecolor Paste, Mapeflex PU 45, Mapefloor I 300 SL, Primer SN, Quartz 0.25, Quartz 0.5

These products have been certified by internationally recognized institutions. They contribute points to achieve the LEED certification for eco-sustainable projects.

Year of Intervention: ***2012***
Client: ***Volvo Polska Sp. z.o.o.***
Floor Laying Company: ***Skater***
Mapei Co-ordinators: ***Pawel Pozniak and Dariusz Sanigorski, Mapei Polska Sp.z o.o.(Poland)***

For further information visit www.mapei.pl



Public building and areas

Edifici grandiosi come la Makkah Clock Tower in Arabia Saudita o le serre Gardens by the Bay a Singapore. Ma anche costruzioni antiche di grande valore storico e artistico. Per ciascun cantiere Mapei offre specifici prodotti per il recupero delle murature, la finitura delle facciate, la posa delle pavimentazioni e l'isolamento termico.

Gardens By the Bay
Singapore

PROJECT OVERVIEW

- To improve the quality of life by increasing the amount of greenery in the city; that is the aim of this project that has received numerous international awards, the most recent being the 2013 "Building of the Year".
- The client asked for specific adhesives to be used for the two large greenhouse gardens exposed to considerable thermal stress, the intense footfall of the numerous visitors and the humidity given off by the plants and irrigation systems.

MAPEI SOLUTION

To install the granite in the cupolas, on the kerbs around the plant systems, on the stairs and in the area where the water features are located, Keraflex Maxi S1 adhesive was used. Keracolor FF was used to grout the joints in the water features in the "Cloud Forest" greenhouse. The mosaics in the bathrooms and the ceramic tiles in the restaurants were installed with Adesilex P10 and Keraflex respectively. Keracolor SF was used to grout the joints. Kerapoxy and Keralastic adhesives were used to bond granite slabs on metal surfaces.

Mapei Products
Adesilex P10, Keracolor SF, Keracolor FF, Keraflex, Keraflex Maxi S1, Keralastic, Kerapoxy

These products are safe for the environment and the end users. They are the result of Mapei R&D labs' commitment to develop eco-sustainable solutions.

Designers: ***CPG Consultants Pte Ltd and Wilkinson Eyre Architects***
Period of Intervention: ***2011-2012***
Client: ***Singapore National Parks Board***
Contractors: ***Woh Hup Pte Ltd***
Laid Materials: ***granite, mosaics and ceramics***
Mapei Co-ordinator: ***Jesseline Yap, Mapei Far East Pte Ltd (Singapore)***

For further information visit www.mapei.com.sg

San Michele Arcangelo Cathedral
Sarno, Italy

PROJECT OVERVIEW

- San Michele Arcangelo Cathedral was once badly damaged and has been renovated numerous times.
- The external structures of the late-Renaissance style tuff stone façades were badly deteriorated and damaged by rising damp.

MAPEI SOLUTION

The first phase of the intervention was on the main façade. The render was demolished to a thickness of 50 cm above the maximum level of the rising damp and then rebuilt using Mape-Antique Rinzaffo and Mape-Antique MC. Mape-Antique FC Ultrafine was then used to level off and smooth the surface. The remaining part of the façades was rendered with Mape-Antique Intonaco NHL and skimmed with Mape-Antique FC Ultrafine. The second part of the intervention was to re-built the render on the lateral façades that were suffering from micro-cracking. Planitop 200 reinforced with Mapenet 150 was applied to finish off the surface, Silexcolor Primer and Silexcolor Paint were recommended.

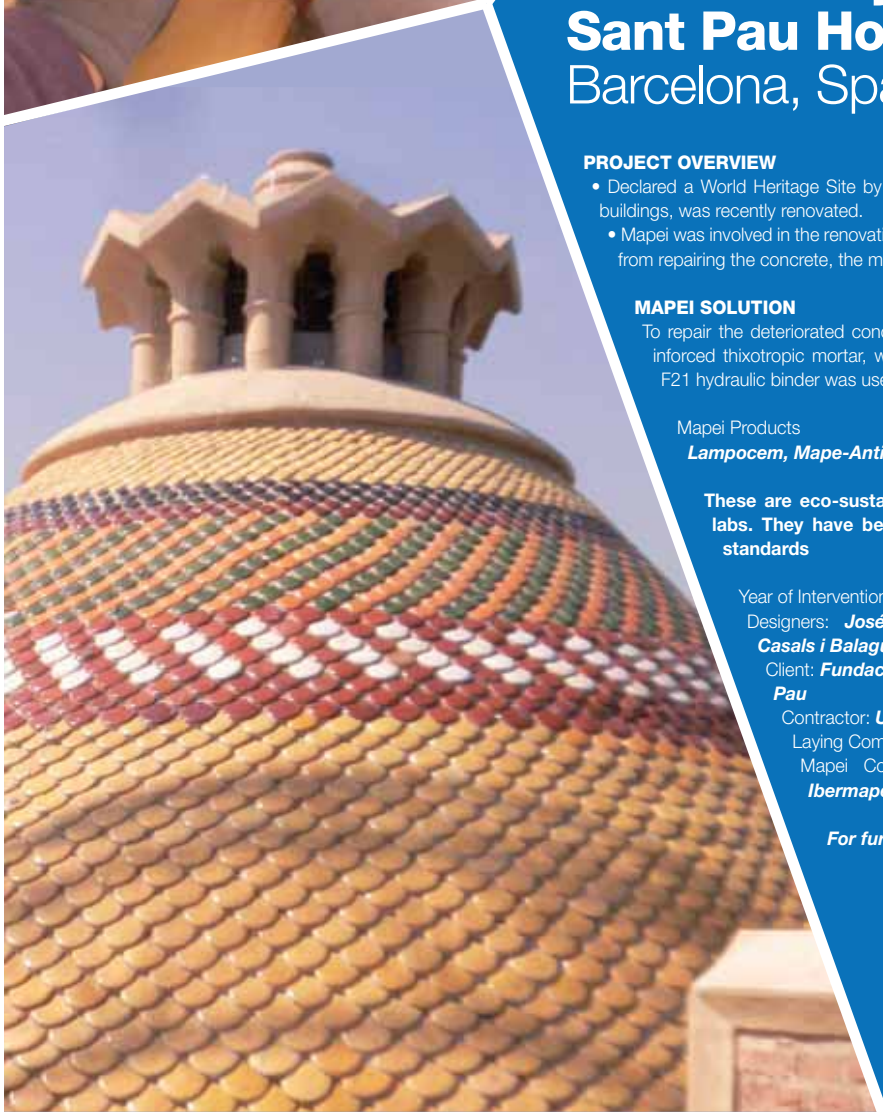
Mapei Products
Mape-Antique FC Ultrafine, Mape-Antique MC, Mape-Antique Rinzaffo, Mape-Antique Intonaco NHL, Mapenet 150, Planitop 200, Silexcolor Paint, Silexcolor Primer

These products have been certified by internationally recognized institutions. They contribute points to achieve the LEED certification for eco-sustainable projects.

Year of Construction: ***1627***
Year of Intervention: ***2013***
Designer and Works Director: ***Arturo Esposito***
Contractor: ***Espo Art***
Mapei Distributor: ***Buglione Elena***
Mapei Co-ordinator: ***Gennaro Mea, Mapei SpA (Italy)***

For further information visit www.mapei.it

Santa Creu y Sant Pau Hospital
Barcelona, Spain



PROJECT OVERVIEW

- Declared a World Heritage Site by UNESCO, this monument, made up of various buildings, was recently renovated.
- Mapei was involved in the renovation work on the Sant Manuel cupola where, apart from repairing the concrete, the masonry was also consolidated.

MAPEI SOLUTION

To repair the deteriorated concrete, Mapei recommended Mapegrout fibre-reinforced thixotropic mortar, while to consolidate the masonry, Mape-Antique F21 hydraulic binder was used.

Mapei Products
Lampocem, Mape-Antique F21, Mapegrout T40

These are eco-sustainable products, developed by Mapei R&D labs. They have been certified according to the most severe standards

Year of Intervention: ***2011***
Designers: ***José Luis González Moreno-Navarro, Albert Casals i Balagué***
Client: ***Fundació Privada Hospital de la Santa Creu y Sant Pau***
Contractor: ***UTE Xèdex-Rècop***
Laying Company: ***CREB***
Mapei Co-ordinators: ***Toni Catllà and Joan Lleal, Ibermapei SA (Spain)***

For further information visit www.mapei.es

Dudley College Evolve Building
Dudley (UK)

PROJECT OVERVIEW

- Recently the building was completely renovated and now the college is able to offers its students an ultra-modern structure.
- Eco-sustainable products with very low emission of volatile organic compounds were specified to install the vinyl flooring and carpet tiles to safeguard the health of the workers and end users. The adhesives also had to provide sufficient strength for the floors which are subjected to intense traffic.

MAPEI SOLUTION

Before installing the flooring the substrate was waterproofed with Mapeproof ESM and then levelled off with Latexplan Trade. The vinyl flooring and carpet tiles were installed with Ultrabond Eco 380 and Ultrabond Eco Tack, respectively, both with very low emission level of volatile organic compounds.

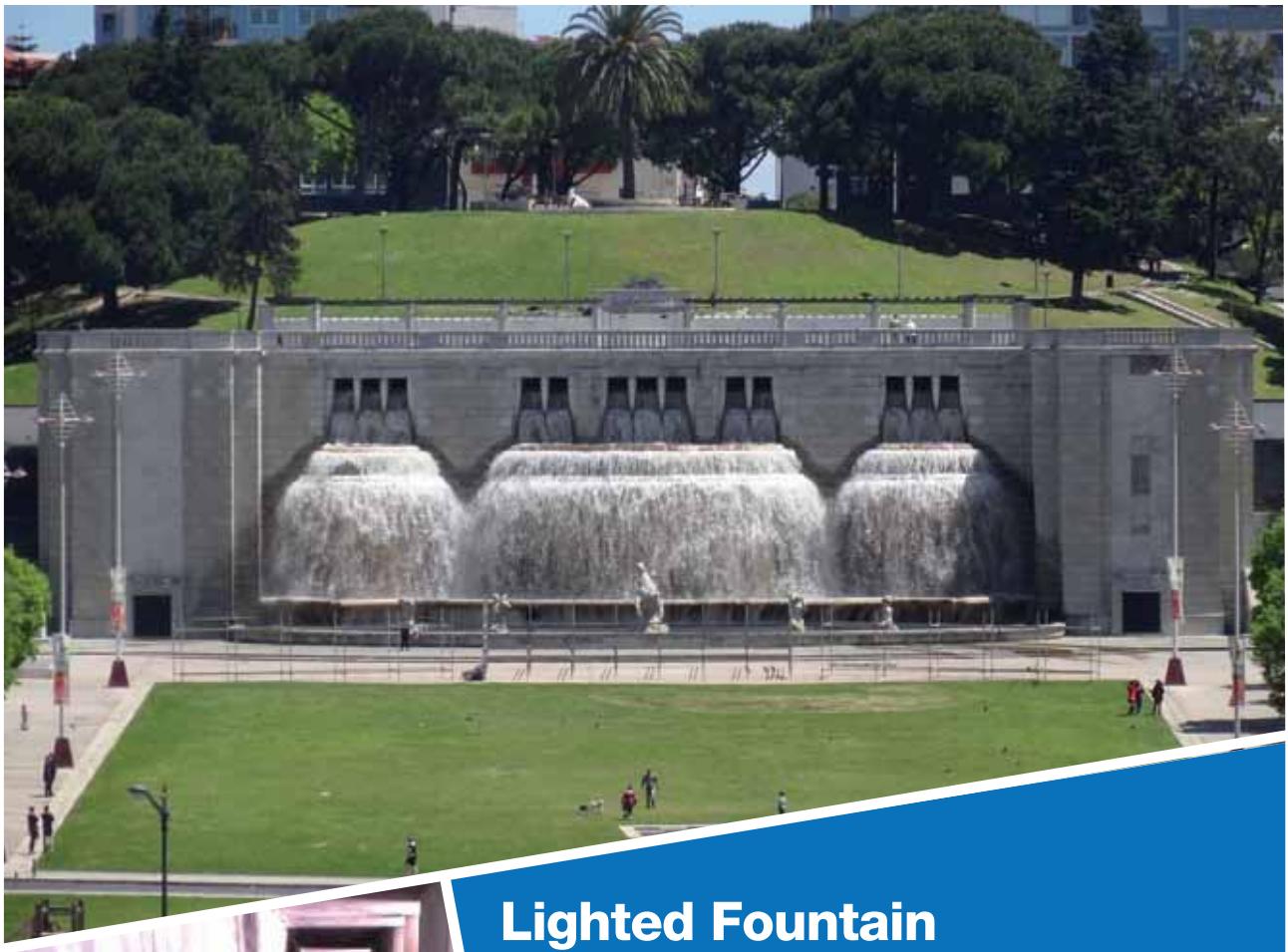
Mapei Products
Eco Prim T, Latexplan Trade*, Mapeproof ESM*, Ultrabond Eco 380, Ultrabond Eco Tack

***These products are distributed on the British market by Mapei UK**

These products were developed by the Mapei R&D labs and feature high sustainability.

Year of Intervention: ***2012***
Contractor: ***ISG***
Works Director: ***Roo Williams, C&C Flooring***
Laying Company: ***C&C Flooring***
Mapei Distributor: ***Betrex***
Mapei Co-ordinator: ***Gary Byrne, Mapei U.K. Ltd***

For further information visit www.mapei.co.uk



Lighted Fountain
Lisbon, Portugal

PROJECT OVERVIEW

- The fountain, a well-loved monument in Lisbon dating back to 1940, was recently renovated and modernised. It went back into operation and was opened to the general public in December 2012.
- The renovation work included repair work on the structure, a thorough clean up of the natural stone, sealing cracks and the addition of ultra-modern electrics and pumping system. Energy consumption has now been reduced by 85%.

MAPEI SOLUTION

Mapei was involved in renovation work on the water channels and the entrances to the internal areas of the fountain. The render was repaired with Nivoplan and Planicrete and the cracks were sealed with Eporip. Numerous surfaces were waterproofed with Mapelastic and Mapeband, while the internal substrates were renovated with Consolidante 8020.

Mapei Products
Eporip, Consolidante 8020, Mapeband, Mapelastic, Nivoplan, Planicrete

These products have been certified by internationally recognized institutions. They contribute points to achieve the LEED certification for eco-sustainable projects.

Period of Construction: ***1940-1943***
Year of Intervention: ***2012***
Client: ***Lisbon City Council***
Designer: ***Manuel Saldanha***
Works Direction: ***João Pedreño***
Contractor: ***H Tecnic Construções Lda.***
Mapei Distributor: ***H Tecnic Construções Lda.***
Mapei Co-ordinator: ***Duarte Graça, Lusomapei S.A. (Portugal)***

For further information visit www.mapei.pt

House of Representatives
Brussels, Belgium

PROJECT OVERVIEW

- The House of Representatives, one of the two houses of the Belgian Parliament, recently transferred some of their offices into a building called Forum 2 with 18,000 m² of office space and six large meeting rooms.
- PVC LVT flooring was installed in the new rooms. The client specified that the flooring had to maintain its dimensional stability in spite of the variations in temperature of the ground caused by its large glass windows.

MAPEI SOLUTION

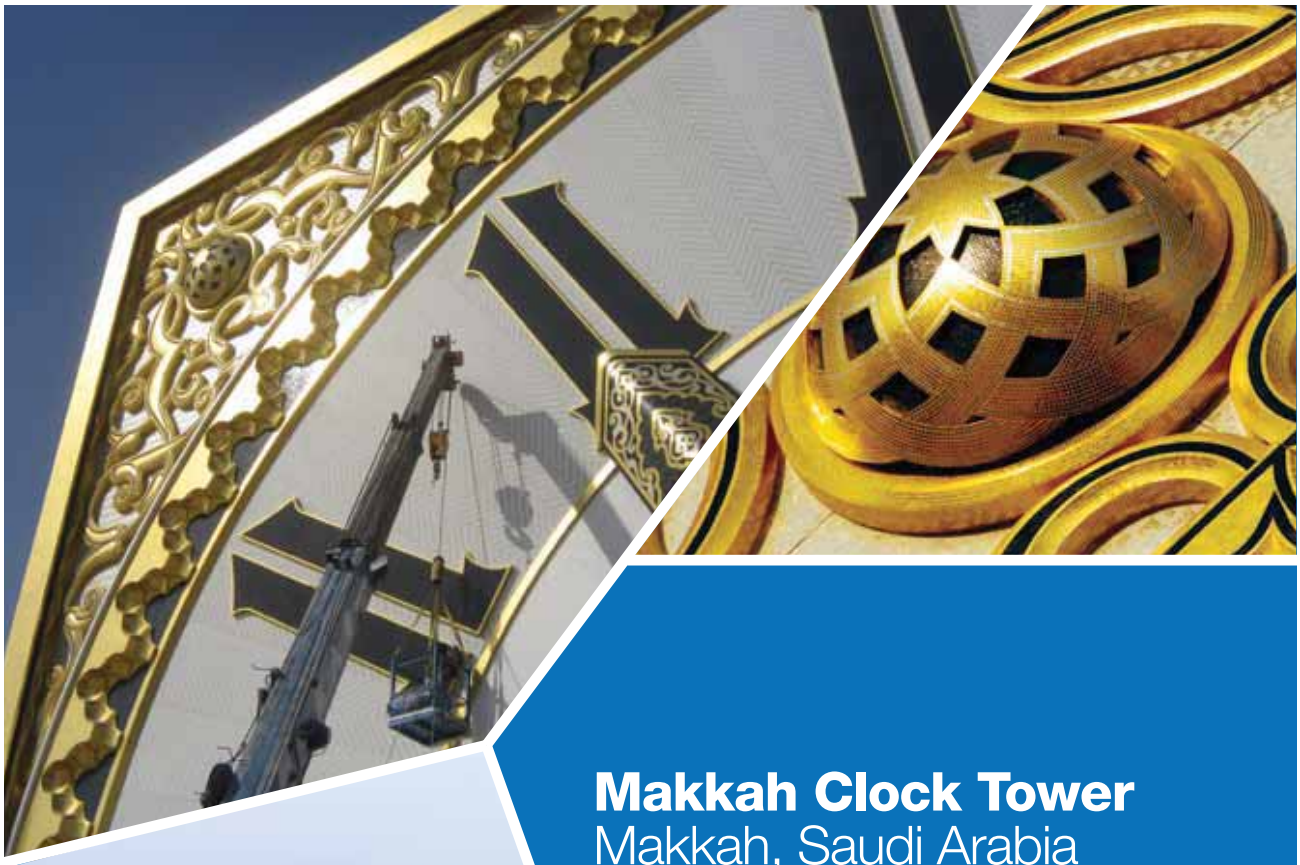
PVC LVT planks were installed using an adhesive specifically developed in the Mapei R&D laboratories for this type of application: Ultrabond Eco Tack LVT. This product reduces the tendency of the planks to shrink at the ends and between the joints.

Mapei Product
Ultrabond Eco Tack LVT

This product features low emission level of volatile organic compounds. It is an eco-sustainable solution developed by the Mapei R&D laboratories.

Designer: ***Philippe Verdussen, Archi 2000***
Period of Intervention: ***2012-2013***
Client: ***House of Representatives***
Works Direction: ***Belgian Government***
Contractor: ***Luis De Waele***
Laying Company: ***Rinaldi***
Laid Materials: ***PVC tiles***
Mapei Co-ordinator: ***Remacle Dany, Mapei Benelux SA/NV (Belgium)***

For further information visit www.mapei.be



Makkah Clock Tower
Makkah, Saudi Arabia

PROJECT OVERVIEW

- The tallest tower in the complex, the Makkah Clock Tower, houses the largest clock-face in the world: more than five times larger than the famous Big Ben in London.
- More than 98 million glass mosaic tiles covering over 40,000 m² were installed on the façades of the structure housing the clock-face. The client asked for an adhesive that could resist high temperatures due to their exposure to the sun, and that also guaranteed a perfect hold for the tiles while the panels were being transported.

MAPEI SOLUTION

For this majestic building site, Mapei formulated a special, tailor-made product: Kerapoxy Adhesive FR, highly resistant to high temperatures and fire. The mosaic tiles were installed on panels in Dubai, while the joints were grouted on site with Kerapoxy.

Mapei Products
Kerapoxy, Kerapoxy Adhesive FR (tailor-made for this site)

These are certified products which can contribute points to achieve the LEED certification for eco-sustainable projects

Designers: ***Dar al-Handasah Shair & Partners, SL-Rasch***
Period of Intervention: ***2008-2012***
Client: ***Premiere Composite Technologies LLC***
Contractor: ***Saudi Bin Ladin Group***
Laying Company: ***Premier Composite Technology***
Laid Materials: ***glass mosaic tiles***
Mapei Co-ordinators: ***Nisreen Salman, Tarana Daroogar and Daniele Spiga, IBS Mapei L.L.C. (UAE); Enrico Geronimi and Cesare Misani, Mapei SpA (Italy)***

For further information visit www.mapei.ae or see Realtà Mapei International n. 45

Nouveau Siècle Concert Hall
Lille, France

PROJECT OVERVIEW

- Designed in 1973, the Nouveau Siècle Concert Hall has been home of the Lille National Orchestra since the 1980's. Because of problems with the acoustics, in 2011 it was decided to intervene and renovate the Hall.
- Oak flooring was installed in the 1700-seat auditorium. The client wanted the substrate to be rebuilt to guarantee maximum stability and durability for the new flooring.

MAPEI SOLUTION

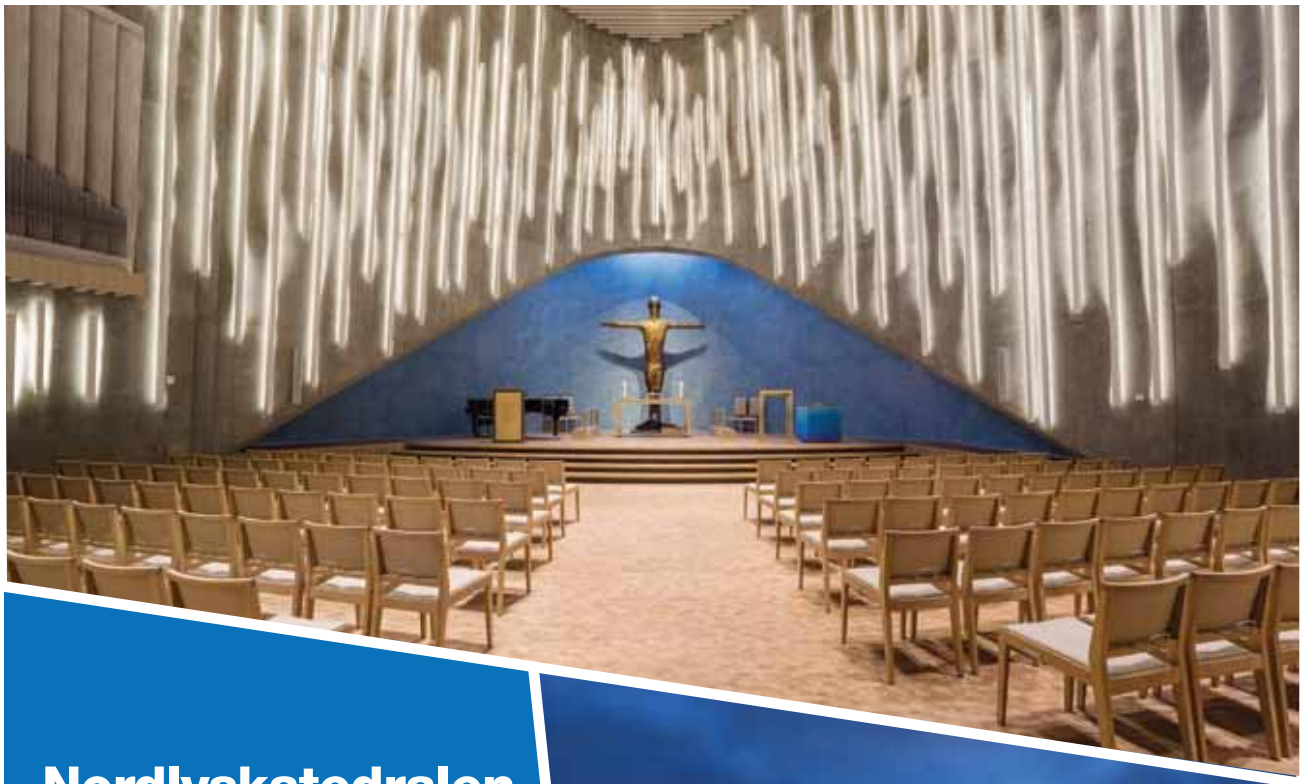
The substrates were prepared with Primer MF and Quartz 1.2 silica sand to prevent rising damp. To install the oak flooring, Ultraplan Maxi self-levelling compound, ideal for floorings subject to intense foot traffic, and Ultrabond ECO S945 1K adhesive with very low emission level of VOC were used.

Mapei Products
Primer MF, Quartz 1.2, Ultrabond ECO S945 1K, Ultraplan Maxi.

These products have been certified by internationally recognized institutions. They can contribute points for eco-sustainable LEED-certified projects

Designers: ***Agence Pierre-Louis Carlier***
Period of Intervention: ***December 2012***
Client: ***Regional Council of Nord-Pas de Calais***
Contractor: ***Agence Pierre-Louis Carlier***
Laying Company: ***Parqueterie de la Lys (Works Director: Bruno Bouquillon)***
Laid Material: ***oak flooring***
Mapei Co-ordinators: ***Laurence Prial and Vincent Le Comte, Mapei France SA***
Photos: ***Ugo Ponte and Laurence Prial***

For further information visit www.mapei.fr



Nordlyskatedralen
Alta, Norway

PROJECT OVERVIEW
- With its unmistakable 220 m spiral tower, this new cathedral has turned the city of Alta into a popular tourist spot.
- For the flooring in the cathedral, the client specified the use of an adhesive for the wooden floor with very low emission level of volatile organic compounds (VOC).

MAPEI SOLUTION
To install the wooden flooring, Ultrabond Eco S955 1K one-component, solvent and isocyanate-free adhesive with very low emission level of VOC was used. Mapei also supplied Dynamon SX-N admixture, Nonset 50 grouting mortar and Montocryl adhesive to make the pre-cast concrete structures.

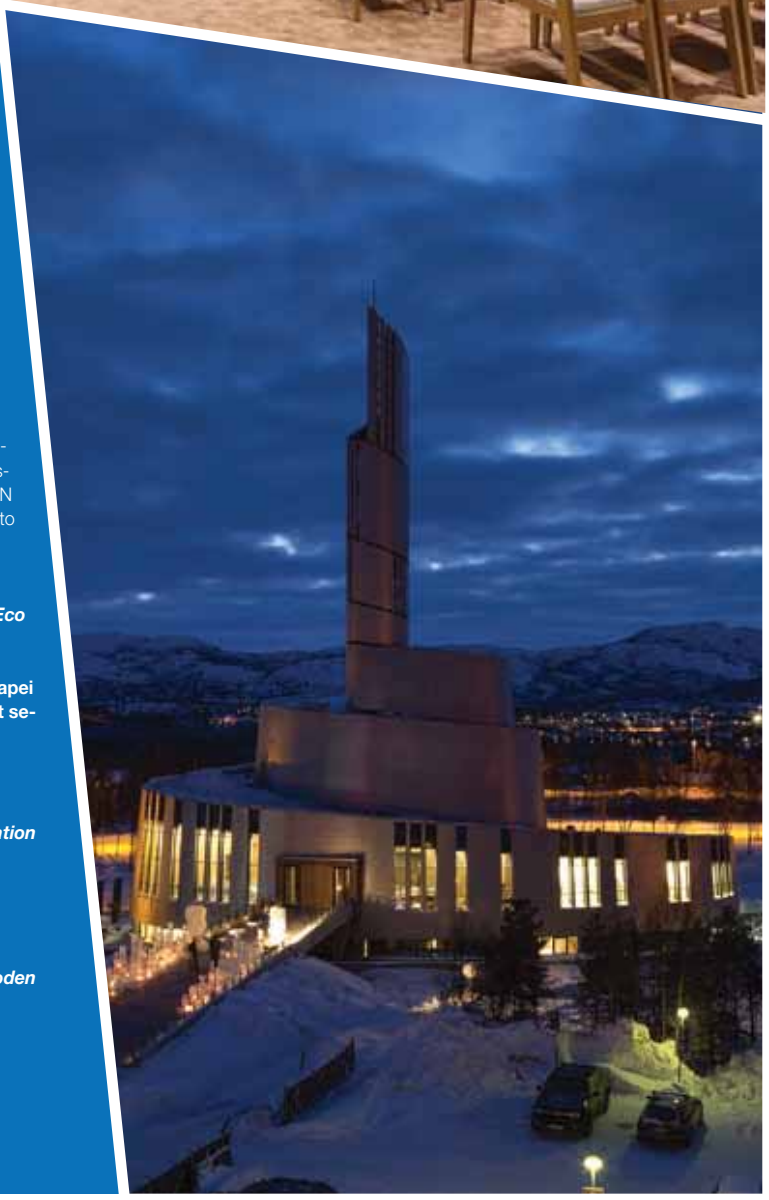
Mapei Products
Dynamon SX-N*, Montocryl*, Nonset 50*, Ultrabond Eco S955 1K

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

***These products are distributed in Norway by Mapei AS**

Designers: ***Link-Signatur AS, Sandnes/Århus in collaboration with Schmidt-Hammer-Lassen Architects, Denmark***
Main Contractor: ***Ulf Kivijervi AS***
Works Directors: ***Knut Krane and Knut Sigurd Pedersen***
Laying Company: ***ABS Parkettgruppen, Jaro Betong***
Laid Materials: ***wooden flooring, pre-cast concrete***
Mapei Distributors: ***ABS Parkettgruppen (as for the wooden floor), Jaro Betong (as for the pre-cast concrete)***
Mapei Co-ordinator: ***Espen Bothner, Mapei AS (Norway)***

For further information visit www.mapei.no



Helicopter Pad Niguarda Hospital
Milan, Italy

PROJECT OVERVIEW

- Covering an area of 500 m², the Niguarda Hospital's helicopter pad guarantees that emergency cases are managed efficiently.
- The project required the installation of an industrial grade surface resistant to medium-heavy traffic and chemical agents, such as oil and cleaning products. The surface also had to be non-slip.

MAPEI SOLUTION

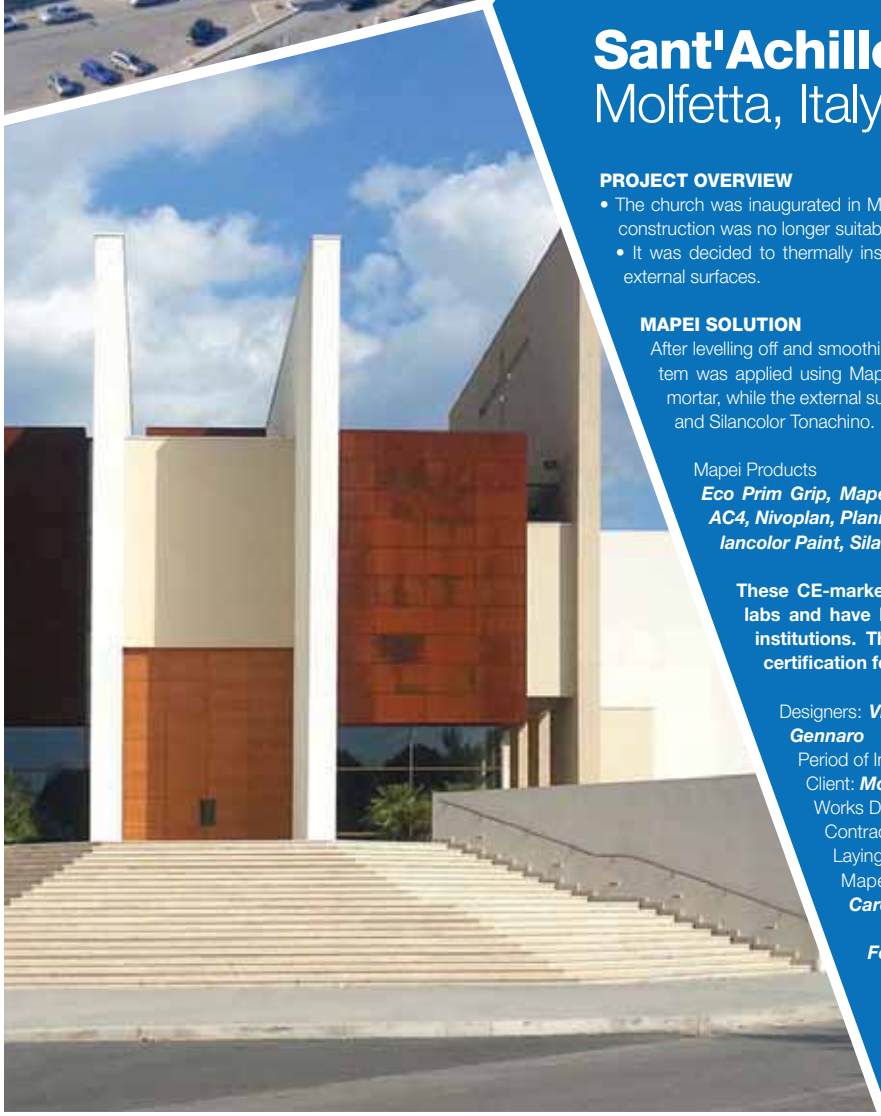
Mapei proposed a flexible, multi-layered epoxy-polyurethane coating around 3 mm thick. Once the preliminary work on the substrate had been completed, two coats of Mapefloor PU 410 binder mixed with Mapecolor Paste were applied. Mapefoam polyethylene cord was placed in the joints, while Mapeflex PU45 was used to seal and protect the edges.

Mapei Products
Mapecolor Paste, Mapeflex PU45, Mapefloor PU410, Mapefoam, Primer SN

These are eco-sustainable products. They are safe for the environment, the installers and the end users.

Year of Intervention: ***2012-2013***
Laid Material: ***resin flooring***
Mapei Co-ordinators: ***Massimiliano Nicastro and Alberto Arosio, Mapei SpA (Italy)***

For further information visit www.mapei.it



Sant'Achille Church
Molfetta, Italy

PROJECT OVERVIEW

- The church was inaugurated in March 2012 after four years of work. The previous construction was no longer suitable for the local community of 15,000 parishioners.
- It was decided to thermally insulate the building and apply a new finish to the external surfaces.

MAPEI SOLUTION

After levelling off and smoothing the external surfaces, a thermal insulation system was applied using Mapetherm AR1 adhesive and Mapetherm AR1 GG mortar, while the external surfaces were finished off with Silancolor Base Coat and Silancolor Tonachino.

Mapei Products

Eco Prim Grip, Mapetherm AR1, Mapetherm AR1 GG, Mapeflex AC4, Nivoplan, Planicrete, Planitop 200, Silancolor Base Coat, Silancolor Paint, Silancolor Primer, Silancolor Tonachino

These CE-marked products were developed by Mapei R&D labs and have been certified by internationally recognized institutions. They contribute points to achieve the LEED certification for eco-sustainable buildings

Designers: ***Vincenzo Balducci, Antonio Grasso, Lucia De Gennaro***
Period of Intervention: ***2010-2012***
Client: ***Molfetta Diocese***
Works Direction: ***Vincenzo Balducci, Antonio Grasso***
Contractor: ***Marcotrigiano Costruzioni Srl***
Laying Company: ***Edil Intonaci di Enzo Giancaspro***
Mapei Co-ordinators: ***Salvatore Peragine, Luca Carcagnì, Achille Carcagnì, Mapei SpA (Italy)***

For further information visit www.mapei.it

The Castle Cultural Centre
Poznań, Poland

PROJECT OVERVIEW

- The Poznań Castle was constructed in Neo-Roman style in 1910. It has been a cultural centre since the 1960's.
- Its former official interiors have been completely renovated by 2012. Mapei Polska's Technical Service Department was contacted to supply an eco-sustainable solution to treat the Jatoba wood flooring on a surface of 1200 m^2.

MAPEI SOLUTION

The wooden floor was initially treated with Ultracoat Binder mixed with Jatoba wood-flour. The surfaces were then prepared before the successive varnishing operation with Ultracoat Premium Base two-component undercoat. A long-haired Ultracoat Roller Plus was used to prevent defects forming in the finish. After three hours a first coat of Ultracoat High Traffic varnish was applied. The surfaces were sanded with an Ultracoat SR abrasive mesh disk to make them perfectly flat. The final treatment was carried out by applying a second coat of Ultracoat High Traffic.

Mapei Products
Ultracoat Binder, Ultracoat Premium Base, Ultracoat High Traffic, Ultracoat SR, Ultracoat Roller Plus, Ultracoat Roller Finish

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

Period of Construction: ***1905-1910***
Year of Intervention: ***2012***
Client: ***Centrum Kultury Zamek w Poznaniu***
Designers: ***Dariusz Kozera and Michal Bortnowski***
Contractor: ***Skanska S.A.***
Laying Company: ***Kompania Drzewna Dariusz Kozera***
Mapei Distributor: ***Wege MB S.C.***
Mapei Co-ordinator: ***Daniel Szarubka, Mapei Polska Sp.z o.o. (Poland)***

For further information visit www.mapei.pl

Tamborino Palace
Lecce, Italy

PROJECT OVERVIEW

- Dating back to the 17th century the Palace was restructured by the Tamborino family in Neo-Classic style in the early 20th century with an innovative concrete mix design.
- Between 2012 and 2013 a series of interventions was required to upgrade the external and internal parts of the building.

MAPEI SOLUTION

Mapei SpA Technical Service Department stepped in to help the company carrying out the maintenance work on the façades. To repair the concrete elements, the intervention included the application of Mapefer anti-corrosion mortar on the reinforcement rods and then repair of the concrete around the rods with Planitop Smooth & Repair. After removing the old render, a new ready-mixed render mixed with Planicrete was applied, while the surfaces were skimmed with Planitop 210 reinforced with Mapenet 150 glass fibre mesh. The surfaces were finished off with Quarzolite Base Coat undercoat followed by a coat of elastomeric protective Elastocolor Paint.

Mapei Products

Adesilex P9, Elastocolor Paint, Kerabond, Mapefer, Mapegrout T40, Mapenet 150, Mapesil AC, Monolastic, Planicrete, Planitop 210, Planitop Smooth & Repair, Quarzolite Base Coat, Ultracolor Plus

These are eco-sustainable products which can contribute points to obtain the LEED certification for buildings.

Year of Construction: ***16th century***
Period of Intervention: ***2012-2013***
Client: ***Palazzo Tamborino Residents***
Designers: ***Antonio Minonne, Mauro Tondo, Alessandro Rizzo, Alma Engineering Srl***
Contractor: ***Leo Costruzioni SpA***
Laying Company: ***Leo Costruzioni SpA***
Mapei Distributor: ***CO.M.EDIL Sas and F.lli Faggiano***
Mapei Co-ordinators: ***Danilo De Matteis, Luca Carcagnì and Achille Carcagnì, Mapei SpA (Italy)***

For further information visit www.mapei.it

Sansepolcro Hospital
Arezzo, Italy

PROJECT OVERVIEW
- The Hospital of Sansepolcro, a small town in the Province of Arezzo (Italy), serves a local population of more than 30,000 residents from the upper valleys of the Tiber River.
- Work started in 2009 to update some of the departments in the hospital including the A&E, in which new flooring was installed.

MAPEI SOLUTION
Mapefloor I 320 SL Concept self-levelling epoxy coating was used for the floors in the A&E department. This product is particularly recommended for areas subjected to medium-heavy loads. It was spread on the surface after preparing it with a diamond grinding disk and then applying Primer SN and Quartz 0.5. New flooring was also laid in the arrivals area for vehicles coming to the hospital. For this area the Multifloor System 32 multi-layered epoxy system was chosen, a system that allows large floor surfaces to be created with the minimum number of joints possible.

Mapei Products
Mapefloor I 320 SL Concept, Mapefloor I 300 SL, Mapecolor Paste, Mapenet 150, Primer SN, Quartz 0.5, Quartz 0.25

These are eco-sustainable products which can contribute points to obtain the LEED certification for buildings.

Year of Construction: ***1973***
Period of Intervention: ***2009-2013***
Designers: ***Giovanni Cecconi and Giustino Romolini***
Works Director: ***Luca Romolini***
Client: ***USL 8 Toscana***
Process Manager: ***G. Cristofoletti***
Contractors: ***Cpl Concordia and G11 Multiservices***
Building Site Directors: ***E. Buracchi and D. Mele***
Laying Company: ***Pavimenti Speciali Srl***
Mapei Distributor: ***Giorni Aldo***
Mapei Co-ordinator: ***Roberto Migliorini, Mapei SpA (Italy)***

For further information visit www.mapei.it

Water Tower and Theatre
Margaret Island, Budapest

PROJECT OVERVIEW

- This island on the Danube has a large cement water tower built in 1911 in Secession style which is now considered a national monument. The Island is a favourite destination for travellers and sports lovers alike. There is also an open-air theatre next to the water tower.
- Restoration work started in 2012 on both buildings.

MAPEI SOLUTION

As far as the water tower was concerned, the reinforcing rods were protected with Mapefer 1K. The deteriorated concrete was repaired using Mapegrout 430 and Planitop 400 and then painted with elastomeric protective Elastocolor Paint after applying a coat of Elastocolor Primer. For the spectator terraces and portico of the theatre, on the other hand, the acrylic resin-based Mapecoat TNS System was recommended, capable of resisting all weather conditions.

Mapei Products
Eporip, Mapecoat I 600 W, Mapecoat TNS Color, Mapecoat TNS White Base Coat , Mapefer 1K, Mapegrout Thixotropic, Planitop 400, Primer EP Rustop, Primer SN

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

Period of Construction: ***tower: 1911; theatre: 1938***
Year of Intervention: ***2013***
Client: ***Budapest City Council***
Designers: ***Architect Ray Dezső Vilmos and Dr. Zielinski Szilárd***
Main Contractor: ***3T FÖÉP Kft.***
Building Companies: ***Globál 21 Kft. and Dairy-Ép Kft.***
Floor Laying Company: ***Turul-Bau Kft.***
Mapei Co-ordinators: ***Szautner Csaba, Barna Mónika, Szabó Orsolya and Kiss Tamás, Mapei Kft. (Hungary)***

For further information visit www.mapei.hu

Hotel Éclat, Beijing Parkview Green
Beijing, P.R.C.

PROJECT OVERVIEW

- The great glass pyramid in the Parkview Green is the first project to be awarded LEED Platinum certification in China. It is located in the Central Business District and hosts, among others, Hotel Éclat. This is a five-star hotel that pays tribute to art with a collection of more than 100 pieces, including original sculptures and paintings from the art greats like Andy Warhol and Salvador Dalì.
- The project required ecologically sustainable products for waterproofing and laying the mosaic tiles in the pools of the suites.

MAPEI SOLUTION

Mapei products were used on the surfaces of 26 swimming pools. The cementitious screed was built with Planicrete SP, cement and sand. Once the substrates were cured and dry, Mapei K12 flexible waterproofing coating was applied. Adesilex P10 mixed with Isolastic was used to bond the mosaic with carp drawing. The grouting of the tile joints was carried out with Kerapoxy Design. Mapesil AC was used to seal the expansion joints.

Mapei Products
Adesilex P10, Isolastic 50, Planicrete SP*, Mapei K12 flexible waterproofing coating*, Kerapoxy Design, Mapesil AC

These CE-marked products are developed by Mapei R&D labs. They contribute points to achieve the LEED certification.

***These products are distributed on the Chinese market by Mapei Construction Materials Guangzhou co. Ltd.**

Period of Construction: ***2010-2012***
Period of Intervention: ***2011-2012***
Designer: ***Beijing Institute of Architectural Design***
Contractor: ***China Jiangsu Int'l Economic Technical Corp. BJ Branch***
Mapei Distributor: ***Pebble Mosaic***
Mapei Co-ordinator: ***Florence Wu, Mapei Construction Materials Guangzhou co. Ltd. (P.R.C.)***

For further information visit www.mapei.com.cn

Borgo del Forte Housing Complex
Forte dei Marmi, Italy

PROJECT OVERVIEW

- The idea behind the project was to reconstruct the atmosphere of an old fishing village with a contemporary feel. The complex comprises six detached villas with swimming pools.
- To install the high quality floor and wall coverings, the client specified adhesives that combined maximum durability and aesthetic impact. In fact, each villa has its own identity, with each one blending perfectly into the surrounding landscape.

MAPEI SOLUTION

The substrates were prepared with Nivoplan smoothing mortar, particularly suitable for internal and external walls and ceilings. To install the ceramic tiles and mosaics, Adesilex P10 cementitious adhesive was used. This product is EC1 R Plus certified (very low emission level of volatile organic compounds) awarded by GEV, an international body that checks emissions from building products.

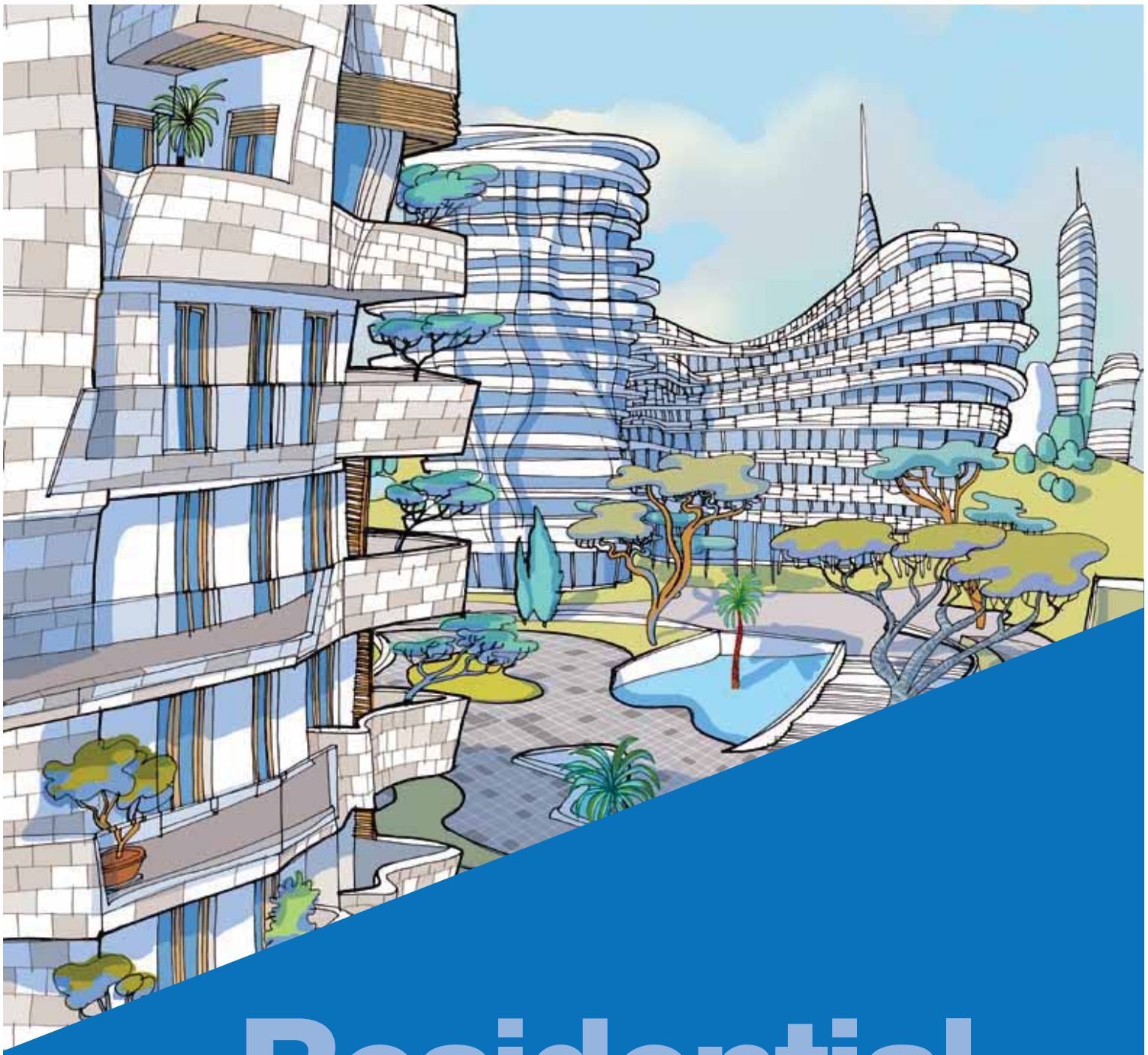
Mapei Products

Adesilex P10, Adesilex P9, Elastorapid, Isolastic, Keracolor GG, Keraflex Maxi S1, Mapeband, Mapefinish, Mapelastic, Mapenet 150, Mapesil LM, Nivoplan, Planicrete, Prosfas, Topcem

These CE-marked products are developed by Mapei R&D labs and feature high technology. They are certified according to the most severe official standards. They contribute points to achieve the LEED certification.

Designers: ***Nardini Studio***
Period of Intervention: ***2011-2012***
Client: ***Rosbelli Srl Real Estate***
Contractor: ***IR Costruzioni***
Works Director: ***Edmondo Nardini***
Laid Materials: ***porcelain tiles, mosaics***
Mapei Co-ordinator: ***Valerio Verdigi, Mapei SpA (Italy)***

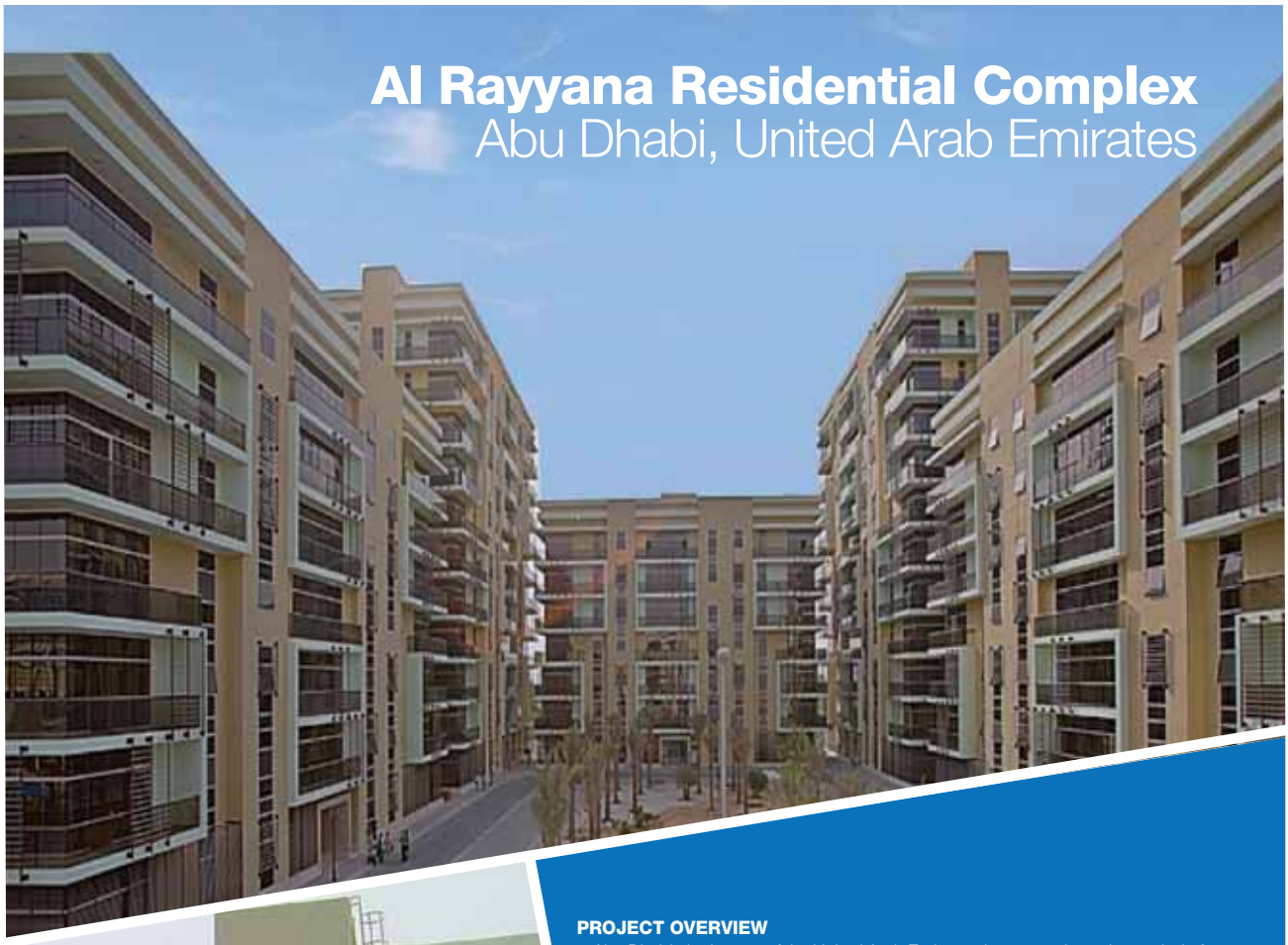
For further information visit www.mapei.it



Residential buildings

Eco-sustainable design and construction is an ever more important requisite when we consider residential buildings. The health of those who inhabit these buildings must be a priority. This is why, in the Mapei R&D laboratories, products are formulated to comply with the most severe international standards regarding eco-sustainability.

Al Rayyana Residential Complex
Abu Dhabi, United Arab Emirates



PROJECT OVERVIEW

- Abu Dhabi, the largest of the United Arab Emirates, has gone through a period of considerable urban development over the last few years. Al Rayyanna residential complex is located not far from the city.
- I.B.S. Mapei's Technical Service Department recommended the most suitable products to repair the structural micro-cracks that had developed due to the heat.

MAPEI SOLUTION

To strengthen the foundations and repair the micro-cracks that had formed, Mapegrout ME06 mortar (a product manufactured and distributed on the local market by I.B.S. Mapei) was pumped directly into and around the foundations. The mortar was mixed with the curing agent Mapecure SRA which has the capacity to reduce the concrete's hydraulic shrinkage. To overcome the problem of micro-cracks in the pillars and beams, Epojet LV was injected with a pump. Structural bonds were then made using Adesilex PG4 epoxy adhesive, while Mapefix EP 385 was recommended to chemically anchor the metallic elements of the structure.

Mapei Products
Adesilex PG4, Epojet LV, Mapegrout ME06*, Mapefix EP 385, Mapecure SRA

***This product is distributed on the United Arab Emirates market by I.B.S. Mapei**

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

Period of Construction: ***2009-2013***
Year of the Intervention: ***2013***
Client: ***Al Sorouh***
Contractor: ***Pivot Engineering***
Mapei Co-ordinators: ***Rajesh Shetty, Nisreen Salman and Tarana Daroogar, IBS Mapei L.L.C. (UAE)***

For further information visit www.mapei.ae

CityLife Apartments by ZahaHadid and Daniel Libeskind
Milan, Italy

PROJECT OVERVIEW

- The project features a new approach for the use of domestic and urban spaces in the city of Milan. The residential complexes designed by Zaha Hadid and Daniel Libeskind and the tower designed by Arata Isozaki made several challenges to contractors and building materials.
- In the apartments designed by Hadid and Libeskind Mapei's Dursilite water-based paint and Silexcolor Marmorino mineral coating were used for the internal walls.
- Mapei's approach to innovation with respect for the environment found fertile ground within the CityLife project, with the adoption of several Mapei solutions for installing wooden floors and ceramic floor and wall coverings. Mapetherm Tile System allowed thin ceramic tiles to be installed on insulated walls.

Mapei Products: ***Keraflex Maxi S1, Mapetherm Tile System, Silexcolor Marmorino***

These are eco-sustainable products, developed by Mapei R&D labs.

Period of Intervention: ***ongoing since 2012***
Designers: ***Zaha Hadid, Daniel Libeskind***
Mapei Co-ordinators: ***Massimo Seregni and Antonio Salomone, Mapei SpA (Italy)***

For further information see Realtà Mapei International n. 41 and www.mapei.it

CityLife
Torre Isozaki
Milan, Italy

PROJECT OVERVIEW

- The new tower designed by Arata Isozaki will be over 200 m tall. The design comprises a reinforced concrete structure with steelconcrete modules.
- The foundations are made of a foundation slab on piles. Special care was required to design the concrete used for the slab. The final concrete mix was obtained by using Mapeplast PZ 300. The superplasticizer Dynamon SR 914 was used in combination with Viscostar 3K viscosity modifying admixture, to form concrete with high self-compacting properties and controlled development of heat hydration.

Mapei Products: ***Dynamon SR 914, Mapeplast PZ 300, Viscostar 3K***

Year of Construction: ***2012***
Designers: ***Arata Isozaki, Andrea Maffei***
Year of intervention: ***2012***
Project: ***Arup Italia***
Works Direction: ***Stefano Perotti, Claudio Guido***
Main Contractors: ***S.G.F. – I.N.C. SpA; Impresa Bacchi***
Building Companies: ***IA; DL; DOKA (for formworks)***
Concrete Supplier: ***Monvil Beton***
Mapei Co-ordinators: ***Pietro Lattarulo and Gianluca Bianchin, Mapei SpA (Italy)***

For further information see Realtà Mapei International n. 41 and www.mapei.it

INCIS Apartment Block
Campobasso, Italy

PROJECT OVERVIEW

- INCIS (the Italian Institute of Homes for State Employees) was created to provide suitable housing for employees of the state. The construction of this complex dates back to 1927.
- Repair work included rebuilding the badly degraded render and protecting and decorating the external façades.

MAPEI SOLUTION

The concrete was repaired with Mapegrout BM while the render was rebuilt using Mape-Antique Rinzaffo and Mape-Antique Intonaco NHL. The external façades were protected and finished with Quarzolite Base Coat, Elastocolor Paint, Silancolor Base Coat and Silancolor Paint.

Mapei Products

Elastocolor Paint, Mape-Antique FC Civile, Mape-Antique Intonaco NHL, Mape-Antique Rinzaffo, Mapefer 1K, Mapegrout BM, Planitop 200, Quarzolite Base Coat, Silancolor Base Coat, Silancolor Paint, Silancolor Tonachino

These CE-marked products were developed by Mapei R&D labs. They are eco-sustainable solutions, safe for the environment and the end users. They have been certified according to the most severe international standards.

Year of Construction: ***1927***
Period of Intervention: ***2010-2012***
Designer: ***Nicola Guglielmi***
Client: ***INCIS (Italian Institute of Homes for State Employees)***
Contractor: ***Costruzioni di Sisto Pompeo***
Mapei Distributor: ***Cosmo Srl***
Mapei Technical Service: ***Luigi Calogiuri, Davide Bandera, Luca Carcagni and Achille Carcagni, Mapei SpA (Italy)***

For further information visit www.mapei.it

Terrazas del Rey
Panama City, Panama

PROJECT OVERVIEW

- Terrazas del Rey is an apartment complex divided into two eighteen storey towers. Work will be completed in 2014.
- The client specified products resistant to thermal stress for the finish on the external façades as in Panama the dry season (27-32° C) alternates with the rainy season (with humidity levels of up to 90%).

MAPEI SOLUTION

Terrazas del Rey is the first project in which the Mapei Group's subsidiary, Mapei Construction Chemicals Panama S.A., has used Elastocolor Paint. This special one-component paint in water dispersion forms a flexible, waterproof coating on surfaces that is also impermeable to aggressive agents present in the atmosphere. It fully met this project's requirements.

Mapei Products
Elastocolor, Malech, Mapegrout T60, Mapenet 150, Planicrete

These products were developed by Mapei R&D labs. They are eco-sustainable solutions, safe for the environment and the end users

Period of Construction: ***on-going since 2012***
Period of Intervention: ***on-going since 2012***
Designer: ***Carlos Zuleta***
Client: ***Estructuras Alfa***
Mapei Distributor: ***Mapei Construction Chemicals Panama S.A. and ELMEC***
Mapei Co-ordinator: ***Itzel Fanovich, Mapei Construction Chemicals Panama S.A.***

For further information visit www.mapei.com.pa

Nouméa Residence
Lignano Sabbiadoro, Italy

PROJECT OVERVIEW
- The Nouméa Residence is a four-storey building with 29 apartments. It was constructed in the 1970's on the sea-front at Lignano Sabbiadoro (Italy).
- The building was completely renovated between 2012 and 2013.

MAPEI SOLUTION
On the roof, the substrate was levelled with Triblock Finish. Purtop 400 M, two-component polyurethane membrane was then applied by spray. It ensured an uniform finish to be completed. The terraces facing the sea-front were waterproofed with Mapelastic. Mapeband was used for the corners between walls and floors while the joints between the pieces of Mapeband were sealed with Adesilex T Super adhesive.
Ceramic tiles were installed using Keraflex Maxi S1 and the joints were grouted with Keracolor GG. The external façades were partially skimmed with Planitop Fast 330 mixed with Latex Plus. Malech bonding promoter was applied before installing the ceramic tiles with Kerabond cementitious adhesive mixed with Isolastic elasticizing latex. Keracolor GG + Fugolastic were used to grout the tile joints. The control joints were sealed with Mapesil LM.

Mapei Products
Adesilex T Super, Fugolastic, Isolastic, Kerabond, Keraflex, Keraflex Maxi SL, Malech, Latex Plus, Mapelastic, Mapeband, Mapenet 150, Mapesil LM, Keracolor, Primer G, Primer SN, Purtop 400 M, Planitop Fast 330, Triblock Finish

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

Year of Construction: ***1973***
Period of Intervention: ***2012-2013***
Client: ***Clemente Moratto***
Designer: ***Mariano Sessa***
Contractor: ***Uni Costruzioni Srl (Moratto Clemente)***
Laying Company: ***Zanon Enos***
Waterproofing Companies: ***Zanon Enos and Graffito Srl***
Mapei Distributor: ***Nosella Dante SpA***
Mapei Co-ordinators: ***Sonia Murer, Mauro Orlando and Ivan Carlon, Mapei SpA (Italy)***

For further information visit www.mapei.it

Apartment Block
Empoli, Italy

PROJECT OVERVIEW

- This is one of the first and most important residential complexes built in the city of Empoli (Italy) in the 1980's.
- The internal façades and courtyard, which were showing signs of wear and deterioration, were lately completely renovated.

MAPEI SOLUTION

The deteriorated areas were initially removed from the surfaces of the façades. Where required, the surfaces were repaired by patching them up with Nivoplan and Planicrete. The exposed reinforcing rods were treated with Mapefer 1K. The walls were then repaired with Planitop Smooth & Repair and levelled off with Planitop 207. Elastocolor Paint was used to protect and paint the surfaces. The external tiled courtyard had water seeping through into the garages underneath. It was decided to completely remove the screed down to the existing bitumen sheath and, once repaired, it was initially coated with nylon, and then covered with a new sand and cement screed with Mapefluid N200 super-plasticising admixture. Joints were then made, waterproofed by applying Mapeband tape using Adesilex T Super and sealed with Mapeflex Blackfill sealant. A layer of Mapelastic waterproofing mortar reinforced with Mapenet 150 mesh was applied. Ceramic tiles were then installed using Keraflex Maxi S1 and joints were grouted with Keracolor GG.

Mapei Products

Adesilex T Super, Elastocolor Paint, Keracolor GG, Keraflex Maxi S1, Malech N200, Mapeband, Mapefer 1K, Mapeflex Blackfill, Mapefluid, Mapelastic, Mapenet 150, Mapesil AC, Nivoplan, Planicrete, Planitop 207, Planitop Smooth & Repair, Primer FD

These eco-sustainable products were developed by Mapei R&D labs. They have been certified according to the most severe official standards.

Period of Construction: ***1980's***

Period of Intervention: ***2011-2012***

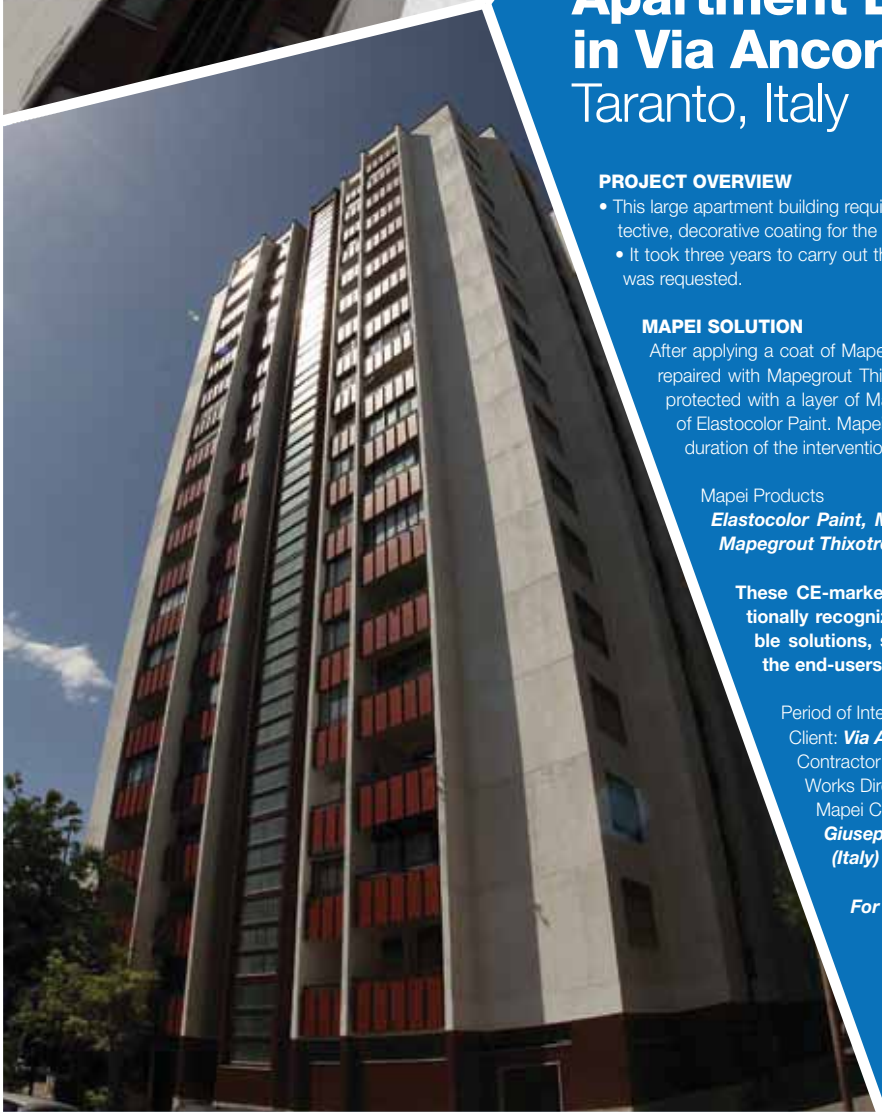
Designer and Works Manager: ***Andrea Sereni, Studio Tecnico 3A***

Contractors: ***Termoedile R.B. Srl (for the façades); Nigro Snc (for the courtyard)***

Mapei Distributor: ***Bianchini and Morelli***

Mapei Co-ordinators: ***Massimo Lombardi, Davide Dido, Carlo Profili and Matteo Venturini, Mapei SpA (Italy)***

For further information visit www.mapei.it



Apartment Building in Via Ancona 23
Taranto, Italy

PROJECT OVERVIEW

- This large apartment building required repair of the deteriorated concrete and a protective, decorative coating for the external façades.
- It took three years to carry out the work and periodic on-site technical assistance was requested.

MAPEI SOLUTION

After applying a coat of Mapefer 1K on the reinforcing rods, the concrete was repaired with Mapegrout Thixotropic and Mapegrout 430. The façades were protected with a layer of Mapelastic Smart and then finished off with a coat of Elastocolor Paint. Mapei also supplied on-site technical assistance for the duration of the intervention.

Mapei Products

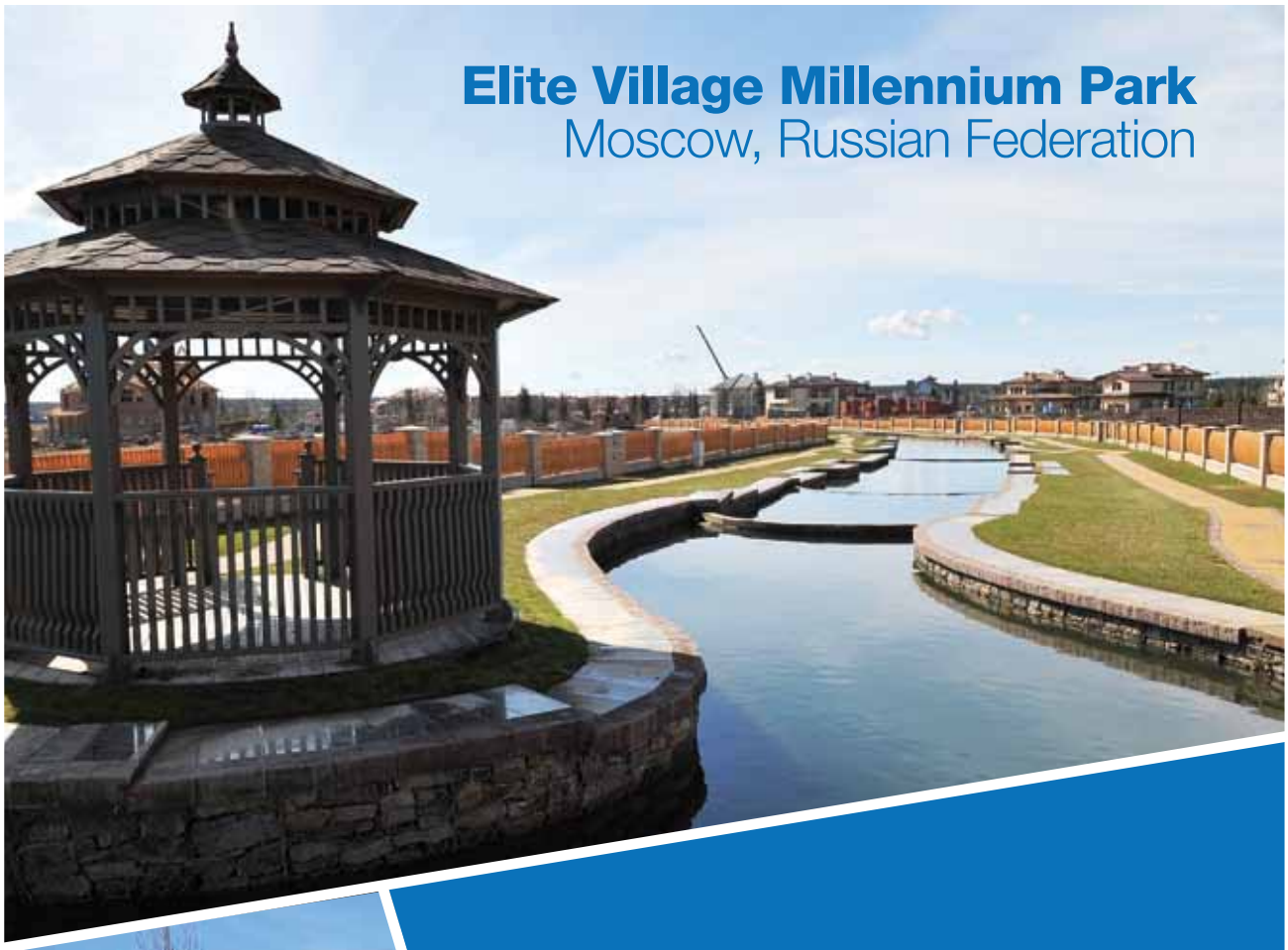
Elastocolor Paint, Mapefer 1K, Mapeflex AC4, Mapegrout 430, Mapegrout Thixotropic, Mapelastic Smart, Planitop 200

These CE-marked products have been certified by internationally recognized institutions. They provide eco-sustainable solutions, safe for the environment, the installers and the end-users.

Period of Intervention: ***2010-2013***
Client: ***Via Ancora 23 apartment owners, Taranto***
Contractor: ***Co.Ri.Edil di Lisi Paolo***
Works Director: ***Raffaele Ferrara***
Mapei Co-ordinators: ***Luca Carcagnì, Gianni Capriglia, Giuseppe La Neve, Achille Carcagnì, Mapei SpA (Italy)***

For further information visit www.mapei.it

Elite Village Millennium Park
Moscow, Russian Federation



PROJECT OVERVIEW

- The largest suburban residential complex in the Moscow area is made up of 670 cottages and five theme parks. It won the silver medal in the Residential Buildings category of the FIABCI Prix d'Excellence Awards, a body that selects the best residential complexes from around the world.
- There is also a network of canals winding between the cottages. Its total length is 7 km and it is up to 12 m wide, with trees, sculptures and terraces adorning its banks. To construct this network of canals and the numerous cottages, Mapei products were specified.

MAPEI SOLUTION

When building the terraces along the canals, Mapelastic was used for waterproofing work, Topcem Pronto for the screeds, Adesilex P9 to install the porcelain tiles, Ultracolor Plus to grout the tile joints and Mapesil AC to seal the expansion joints. In the cottages, Mapefer 1K, Mapegrout Thixotropic, Planicrete and Nivoplan Plus were used to repair and level the concrete surfaces.

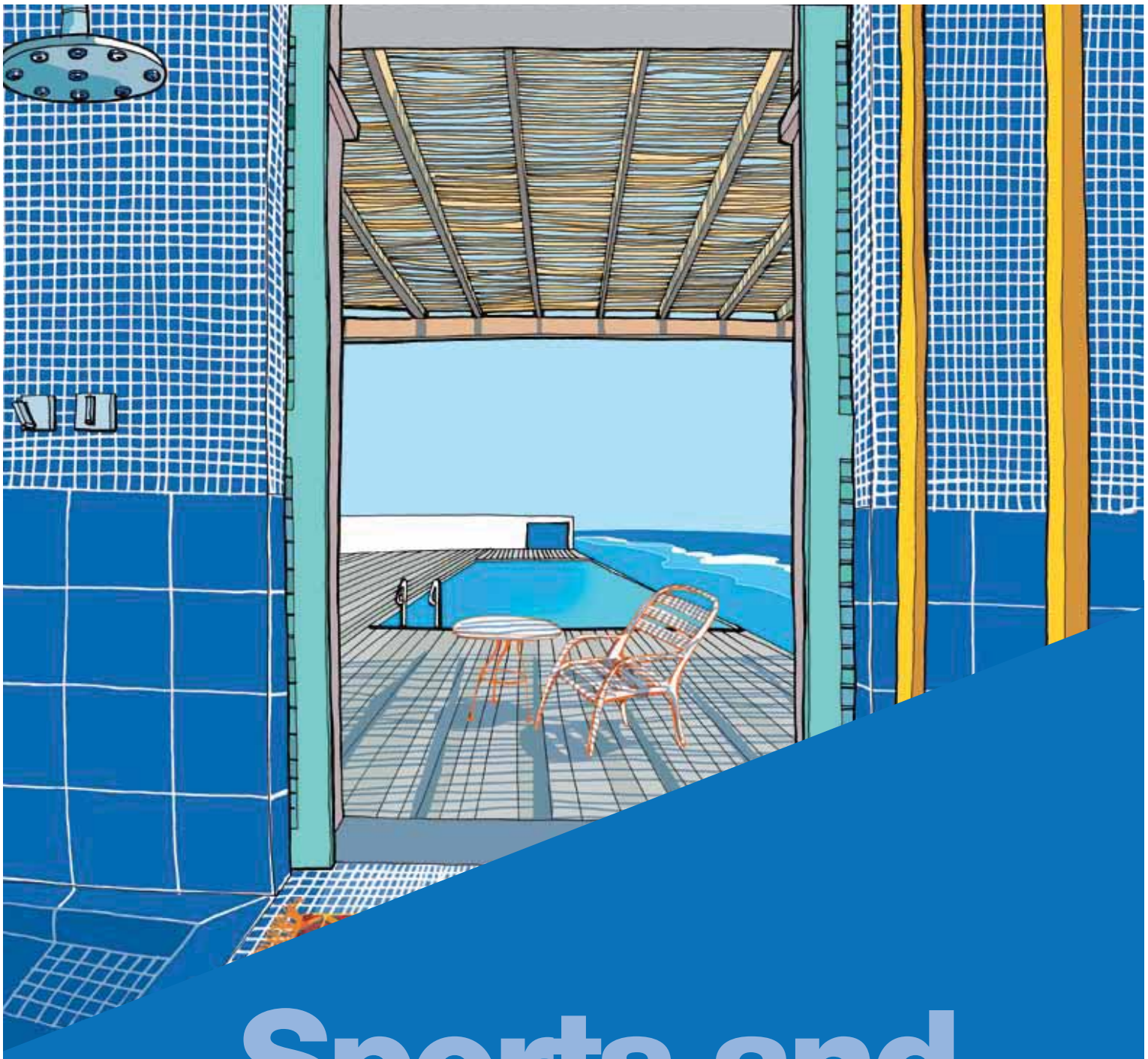
Mapei Products

Adesilex P4, Adesilex P9, Granirapid, Mapeband, Mapeflex PU50 SL, Mapelastic, Mapesil AC, Mapefer 1K, Mapefoam, Mapegrout Thixotropic, Planicrete, Nivoplan Plus, Topcem Pronto, Ultracolor Plus

These products are developed by Mapei R&D labs. They are certified according to the most severe standards: safe, eco-sustainable solutions for the environment, installers and end users.

Period of Intervention: ***2009-2012***
Designer: ***Villagio Estate***
Client: ***Incom Corporation***
Contractor: ***Villagio Estate***
Works Direction: ***Boldyreva***
Laid Materials: ***porcelain tiles and stone materials***
Mapei Distributor: ***Albia***
Mapei Co-ordinators: ***Vladimir Kovalenko, Alexey Savonin and Irina Boldyreva, ZAO Mapei (Russia)***

For further information visit www.mapei.ru



Sports and wellness facilities

Where there's sport there's also Mapei. From synthetic grass playing fields to athletics tracks, from the FIFA World Cup to the Olympic Games, Mapei offers complete systems to make running tracks, playing surfaces and swimming pools. These are leading products in terms of reliability, safety and eco-sustainability: products for champions.

Dòlaondes Aquatic Centre
Canazei, Italy

PROJECT OVERVIEW

- This aquatic centre in Val di Fassa region has four different theme areas spread over a total of 2,400 m^2.
- The centre was extended recently and Mapei was asked to supply eco-sustainable products to respect the surrounding environment in all the various building phases.

MAPEI SOLUTION

After waterproofing the surfaces with Mapelastic, ceramic tiles were installed in the spillway with Kerapoxy Adhesive and in the other areas with Kerapoxy. The joints were then grouted with Ultracolor Plus.

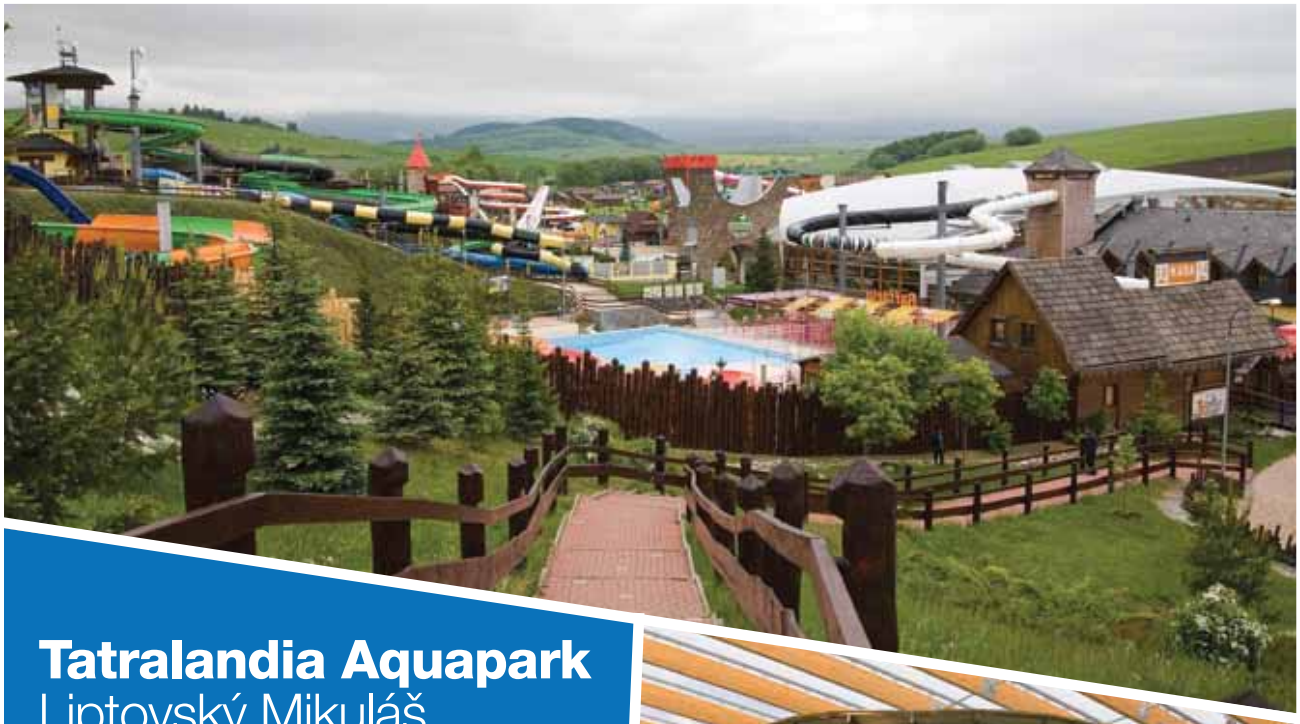
Mapei Products

Mapesil AC, Keracrete, Kerapoxy, Kerapoxy Adhesive, Mapelastic, Planitop Fast 330, Topcem, Ultracolor Plus

These CE-marked products have been certified by internationally recognized institutions. They feature high technology and can contribute points to achieve the LEED certification for eco-sustainable buildings.

Year of Intervention: ***2012***
Designers: ***Ralf Dejaco and Bea Interiors***
Client: ***Hafer Flieser & Boden***
Mapei Co-ordinators: ***Andrea Bettini and Susanna SaS, Mapei SpA (Italy)***

For further information visit www.mapei.it



Tatralandia Aquapark
Liptovský Mikuláš, Slovak Republic

PROJECT OVERVIEW

- Tatralandia is an aquatic theme park located in an area of outstanding natural beauty and cultural interest. It attracts a large number of visitors from the Slovak Republic, the Czech Republic and Poland.
- In the Tropical Paradise area, new fresh water and sea water swimming pools have been built. Various interventions were required, such as waterproofing, concrete repair and the installation of ceramic tiles.

MAPEI SOLUTION

The pools in the Tropical Paradise area were waterproofed with Mapelastic and Mapelastic Smart. To install the tiles, Mapei supplied adhesives, grouts and sealants such as Keraflex Maxi S1, Adesilex P10, Keralastic T, Mapetex Sel, Mapetex Vlies, Kerapoxy, Keraquick and Mapesil AC.

Mapei Products

Adesilex PG1, Adesilex P10, Isolastic, Latex Plus, Keraflex Maxi S1, Keralastic T, Kerapoxy, Kerapoxy Design, Keraquick, Mapeband, Mapeband Butyl*, Mapecoat I 24, Mapeflex PU45, Mapefoam, Mapegrout SV, Mapegum WPS, Mapelastic, Mapelastic Smart, Mapetex SEL, Mapetex Vlies**, Mapetex System, Mapesil AC, Topcem, Topcem Pronto, Triblock P, Ultracolor Plus

These products are certified according to the most severe standards. They are eco-friendly solutions, safe for the environment, installers and end users.

***This product is distributed on the Slovak market by Mapei SK**
**** This product is manufactured by Mapei GmbH (Germany)**

Year of Intervention: ***2012***
Designers: ***ATELIÉR GAM, s.r.o. – Ingč. arch. Marián Goč***
Client: ***Tatry Mountain Resorts a.s.***
Contractor: ***Riastav s.r.o.***
Laying Company: ***Riastav s.r.o.***
Mapei Distributor: ***Ing. Ľudevít Kurpas - K.R.T.***
Mapei Co-ordinator: ***Igor Kaštan, Mapei SK sro (Slovakia)***

For further information visit www.mapei.sk

Dalmine Velodrome
Bergamo, Italy

PROJECT OVERVIEW

- The track, built in 1926 following a request by the Dalmine Sport Association, has played host over the years to numerous cycling events for the Italian and European Championships.
- In the spring of 2013, in preparation for the Italian Youth Cycling Championships, it was decided to install a new cycling track.

MAPEI SOLUTION

The substrate, which had cracks in various sizes, was repaired using Primer SN mixed with Quartz 1.9. The same procedure was also used to rebuild all the structural joints, which were then sealed with Mapeflex PU 45.

Mapei proposed the Mapecoat TNS Urban system to coat the surface of the track. The first step of the procedure was to apply a first coat of Mapecoat I 600 W primer, followed by two coats of Mapecoat TNS Base Coat White acrylic resin basecoat and filling paste. The first coat of Mapecoat TNS Urban in the colour specified by the cycling club was then applied, followed by a coat of coloured Mapecoat TNS Color, a coating product that guarantees the correct balance between low friction and adherence on external surfaces in all weather conditions. The areas of the track used for the actual racing were then marked out with Mapecoat TNS Line.

Mapei Products

Mapecoat I 600W, Mapecoat TNS Color, Mapecoat TNS Line, Mapecoat TNS Urban, Mapecoat TNS Base Coat White, Primer SN, Quartz 1.9

These products feature innovative technologies, developed in the Mapei R&D labs and providing eco-sustainable solutions.

Year of Intervention: ***2013***
Client: ***Società Polisportiva Dalmine***
Laying Company: ***Pavimenti Speciali***
Mapei Distributor: ***Pavimenti Speciali***
Mapei Co-ordinators: ***Fabio D'Amato and Andrea Peli, Mapei SpA (Italy)***

For further information visit www.mapei.it

Monza Sporting Club
Monza, Italy

PROJECT OVERVIEW

- A favourite gathering place in the Monza and Brianza area, the headquarters of the Monza Sporting Club is in a villa built in the 1930's surrounded by a large park.
- Following a fire in 2012, major repairs were required along with strengthening work on the damaged structures.

MAPEI SOLUTION

Static strengthening was carried out on the floor slabs using products from the MapeWrap line: MapeWrap Primer 1, MapeWrap 11 adhesive and Carboplate carbon fibre pultruded plates. The load-bearing walls were strengthened with Planitop HDM Restauro mortar and Mapegrid G 220 glass fibre mesh.

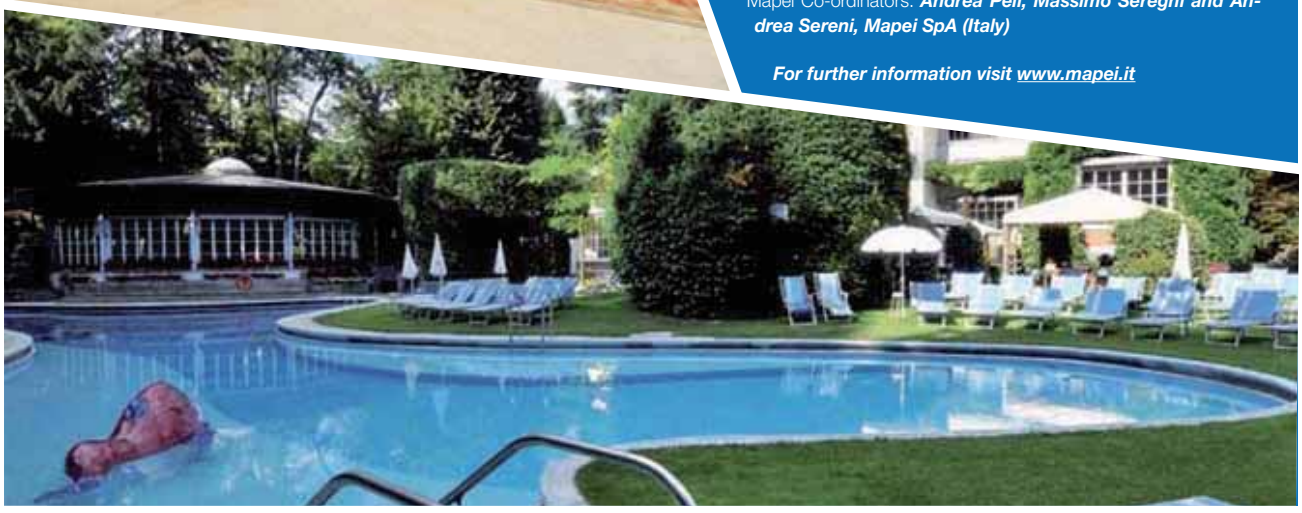
Mapei Products

Carboplate, Dursilite, Malech, Mape-Antique NHL, Mapegrid G220, Mapegrout BM, Mapetherm AR1, MapeWrap 11, MapeWrap 31, MapeWrap G Fiocco, MapeWrap Primer 1, Planitop HDM Maxi, Planitop HDM Restauro, Silexcolor Marmorino

These products have been certified by internationally recognized institutions. They are eco-sustainable solutions, safe for the environment and end-users.

Year of Intervention: ***2012***
Designer: ***Studio ing. Domenico Fusani***
Client: ***Sporting Club Monza***
Contractor: ***D.M. SAS***
Works Direction: ***Studio ing. Domenico Fusani***
Mapei Co-ordinators: ***Andrea Peli, Massimo Seregni and Andrea Sereni, Mapei SpA (Italy)***

For further information visit www.mapei.it



Olympic Swimming Pool
Queensland University of Technology
Queensland, Australia

PROJECT OVERVIEW

- The Queensland University of Technology, in Brisbane, is one of the most important universities in Australia. An aquatics centre featuring an Olympic-size swimming pool was inaugurated in February 2013.
- The project was awarded a 5 star Green Star Rating by the Green Building Council of Australia.

MAPEI SOLUTION

Mapeband rubber tape was bonded over all the joints in the structure using Eporip adhesive. Two layers of Mapelastic Smart cementitious waterproofing mortar were then applied on the surfaces.
After applying two coats of Keracrete adhesive mixed with Planicrete SP*, and then treating the surfaces with Primer G, ceramic tiles were installed. The tile joints were grouted with Ultracolor Plus. The fillet joints and expansion joints were sealed with Mapesil AC. The surfaces of the concrete in the service areas were treated with Biblock and Mapecoat I 24.

Mapei Products
Biblock, Keracrete, Mapecoat I 24, Mapelastic Smart, Mapesil AC, Planicrete SP*, Ultracolor Plus

These are eco-sustainable solutions which have been certified according to the most severe official standards. They contribute credits for the Green Star certification.

***This product is distributed on the Australian market by Mapei Australia**

Period of Intervention: ***2011-2013***
Client: ***Queensland University of Technology***
Designer: ***Cox Rayner***
Project Manager: ***Leighton Contractors***
Contractor: ***Leighton Contractors***
Laying Company: ***Tilecorp***
Mapei Co-ordinator: ***Dyorn Taylor, Mapei Australia Pty Ltd***

For further information visit www.mapei.com.au

Work in progress
Panama Canal

Work is in full swing on the Panama Canal expansion, a project which includes the construction of two new sets of locks (one on the Atlantic side and one on the Pacific side) to increase the flow of commercial traffic along the Canal. The objective of this imposing project, which has been under way since 2007, is to double the capacity of the most important waterway in the world, exactly 100 years after the first crossing in 1914.
Once the new locks have been completed in the north side, at Gatún, on the Atlantic Ocean, and on the south side, at Miraflores, on the Pacific Ocean, even the Post-Panamax maxi container ships will be able to navigate along the 80 km long canal. Mapei admixtures were selected to build all concrete structures including mass concrete as well as marine concrete, to be used to make the external sides and internal sides of the concrete locks, respectively. Beside, Mapei contributed to the restructuring works that involved the original canal.
The company offered a contribution for renovation and consolidation work for the Gatún Lock, located approximately 30 m below ground and considered to be the most imposing reinforced concrete structure ever constructed.

MAPEI IN PANAMA

Mapei Construction Chemicals Panama S.A. is the Group's subsidiary in Panama and was founded in April 2011. Its headquarters and production facility are in Panama City. The company has 20 employees. It sells admixtures for concrete manufactured by the company itself and other products bought from the Group's headquarters or near-by subsidiaries. In the photo on the left, from left on: Pedro Graniela, Renato Soffi, Adriana Spazzoli, Giulio Cesaroni, Fabian Giugno and Giorgio Squinzi at the Panama Canal's site.

Aida **in Panama**

Verdi's most famous opera to strengthen ties between Italy and Panama

The opera Aida, which was performed on 30th October, 2013 in striking Anayansi opera house in Panama as part of the bicentenary celebrations of the birth of Giuseppe Verdi, was a dazzling success with both the critics and audience. The event was organised by the Italian Embassy in Panama in partnership with the Panama Opera Foundation, also drawing on the support of the local National Cultural Institute (INAC) and various Italian institutions, including the Ministry of Education, University Studies and Scientific Research, the Puccini Festival Foundation from Torre del Lago, Santa Cecilia Conservatory from Rome, Rome Opera House and the National Dance Academy. One of the sponsors of the event was Mapei, which is currently involved in the project to double the size of the Panama Canal, as you can read in the next article. The partnership set up between Italian and Panamian institutions enabled the staging of Verdi's opera, an event intended to strengthen the ties of friendship and cooperation between the two countries. In addition to the Ambassador, Mr Giancarlo Maria Curcio, the CEO of the Mapei Group, Giorgio Squinzi, was also in the audience in his role as the President of Confindustria, the Confederation of Italian Manufacturing and Service Companies. This highly successful rendition of Aida was performed by the Panama National Symphony Orchestra supported by 25 Italian musicians chosen from Santa Cecilia Conservatory. The event was staged just over 105 years after the official opening of the Panama National Theatre - built immediately after Panama was separated from Colombia by the Italian architect Gennaro Malgeri - marked back then by a performance of this same opera, also with an eye towards the forthcoming celebrations for the hundredth anniversary of the Panama Canal (August 2014) and impending works to construct the new interplay of locks (April 2015). In front of a packed audience, this staging of Aida, impeccably conducted by maestro Elio Orciuolo with a cast of internationally acclaimed Italian soloists, was unique of its kind, artistically speaking, in the history of the nation.

Mapei's contribution to this event was the culmination of a strategy that sees Panama play a pivotal role in the company's operations in Latin America. Mapei Group's Global Development Director, Veronica Squinzi, stated that: "Mapei's involvement in the Panama project provides us with a stepping stone into this area, already guaranteed by our subsidiary on-site, including offices, organisational operations and manufacturing plants. That is not all. Panama also provides a bridge with our North American team, which is specifically devoted to our corporate works on admixtures for concretes".

38th Anniversary Awards Gala for NIAF

The Italian industrialists Diana Bracco and Roberto Colaninno were awarded prizes by the Foundation of Italian-Americans living in the USA

The 38th Anniversary Awards Gala of the National Italian American Foundation (NIAF) was held on 26th October, 2013. The foundation represents the over 20 million Italian-Americans currently living in the United States. A number of leading exponents of both Italian and American institutions attended the gala evening held at the Hilton Hotel in Washington, including the President of the Italian Senate, Pietro Grasso, the Italian Ambassador in the USA, Claudio Bisogniero, and the President of Confindustria (the Confederation of Italian Manufacturing and Service Companies) Giorgio Squinzi. Two Italian industrialists were awarded prizes at the gala: Diana Bracco, Chairman and CEO of the Bracco Group, for philanthropy and Roberto Colaninno, Chairman and CEO of the Piaggio Group, for international business affairs. Americans receiving prizes included the actor and film director Paul Sorvino, and the former US Secretary of Defence, Leon Panetta. The event was also attended by Nancy Pelosi, Minority Leader of the United States House of Representatives (in the photo above, on the left).

Chairman Bracco had the chance to talk about the operations of the Group she heads in the United States and to mention the important philanthropic projects carried out by Bracco in America. Referring to such significant recognition, Giorgio Squinzi was quick to point out that "Diana Bracco was justifiably and deservedly given this award both for her business expertise and the great vision she has always had in the realm of philanthropy".

"We are here in large numbers this evening in Washington to celebrate her achievements", so Giorgio Squinzi said, pointing out the great friendship that ties him to this leading businesswoman, who is also Confindustria's Vice President for Research and Innovation. "Such recognition from NIAF" so he concluded "pays tribute to a businesswoman, who has brought prestige to Italy for so many years".

Invitation to take part at Expo 2015

Last but not least, as the President of Expo 2015 SpA and General Commissioner of the Italian Pavilion, Diana Bracco also took this opportunity to launch an appeal to the Italian-American community, inviting everybody to come to Italy while the Exposition is being held. Barack Obama announced America's participation in the event sometime ago. 142 countries have now officially announced they will be taking part. The Expo could become the driving force behind an event that Italian-Americans and Italians will be able to enjoy together examining an issue that concerns the entire planet: "Feeding the planet. Energy for life".

USA Tour by Cameristi della Scala

Mapei tightened its relations with music during the Year of Italian Culture in the USA thanks to the La Scala Chamber Orchestra

The Chamber Orchestra of Milan's La Scala Theatre (Cameristi della Scala) went on a tour of the United States entitled *Fantasies on Verdi's Operas* from 7th to 11th October, 2013. The event was part of the Year of Italian Culture in the USA and the bicentenary celebrations of the birth of Giuseppe Verdi and visited the cities of Boston, Providence, Washington, New York and Miami. It was promoted by the Province of Milan and sponsored by the Italian oil and gas company Eni and Mapei. This was a continuation of that special relationship between Mapei and classical music, more specifically with La Scala Theatre in Milan (of which Mapei has been a Permanent Founder since 2008).

The tour was presented September last year in the headquarters of the Province of Milan by the President of the Province, Guido Podestà, and the Chairman of the Cameristi della

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, KRESGE AUDITORIUM Boston

BROWN UNIVERSITY

Providence

CARNEGIE HALL

New York

Cameristi della Scala
orchestra da camera

CAMERISTI DELLA SCALA

Composed of musicians from the La Scala Theatre Orchestra and La Scala Philharmonic Orchestra in Milan, it first began performing in 1982.
The Cameristi della Scala have performed concerts in the world's most prestigious theatres and concert halls. Enduring partnerships with the greatest conductors on the world stage, from Riccardo Muti to Daniel Barenboim, have helped shape the sound and bring out

LIBRARY OF CONGRESS, COOLIDGE AUDITORIUM

Washington

CA' D'ORO ART GALLERY

Miami

Scala Association, Gianluca Scandola, together with the Mapei Group's Operational Marketing and Communication Director Adriana Spazzoli, and the Marketing Manager of the Mapei Corporation (the US subsidiary of the Mapei Group), Steven Day. "Thanks to Mapei and Eni, we have been able to export Italian excellence to the United States", so Guido Podestà stated.

The five performances were a huge success. These *Fantasies* were composed by leading Italian composers in the 19th century and performed in their first modern-day renditions: Camillo Sivori (1815-1894), *Il Trovatore* (for a violin and orchestra); Antonio Bazzini (1818-1897), *La Traviata* (for a violin and orchestra); Luigi Mancinelli (1848-1921), *Don Carlo* (for a cello and orchestra); *Aida* (for a cello and orchestra); Giovanni Avolio (1849-?), *Otello* (for a violin, cello and orchestra); *Falstaff* (for a violin, cello and orchestra).

These were previously unheard tributes to the composer discovered by the Chamber Orchestra in Italian libraries. They had undergone a lengthy process of revision and transcription before being performed for the first time in their modern-day renditions.

The concert held on 10th October (the day when Giuseppe Verdi was born) 2013, at Carnegie Hall in New York, a shrine to music in Manhattan, was particularly exciting and significant. Before the first notes enveloped the audience, Natalia Quintavalle, the Italian Consul in New York, said: "It is very exciting for everybody to be here this evening; an important event included as part of the Year of Italian culture in the United States".

"This is an entirely instrumental work, an unusual experience for those used to listening to Verdi's arias" claimed Gianluca Scandola. "We managed to provide an extremely virtuoso and cantabile version of the music in a very natural way, thanks to the great familiarity we have with Verdi's music".

The tour by the Cameristi della Scala was technically flawless and highly emotional, successfully getting Mapei's friends and customers and the entire Italian-American audience emotionally involved.

those unique musical traits that place the Cameristi della Scala at the very forefront of Italian chamber music.

In 2012 they were awarded the Isimbardi Prize by the Province of Milan, only awarded to institutions whose notable international activities have contributed to the city of Milan's prestige around the world.

The orchestra's repertoire includes the most important compositions for chamber orchestra from the 18th century to the present day.

It focuses on little-known and rarely performed Italian instrumental music from the 19th century.

It often features highly virtuoso solo parts that adapt perfectly to the instrumental characteristics of the group's soloists, who are all internationally renowned concert performers.

ENZO RICCI STADIUM in Sassuolo

Work completed in record time at the historical Black and Greens stadium

The choice to use the stadium in Reggio Emilia for the home games of the Sassuolo football team in the top division of Italian football (see the following articles), and Mapei's recent acquisition of the newly-baptised Mapei Stadium, does not mean people have forgotten the old Enzo Ricci stadium in Sassuolo which, before the start of the 2013-2014, underwent a revamp. It was right here, from 1972 to 2008, the year Sassuolo won promotion to Serie B, that the Black and Greens played their home games.

The stadium has a capacity of 4,008 with just one spectator sector, the covered central stand. Today it is used for the games played by the youth team and the first team's training sessions. Up until last season the changing rooms and other areas used by the team for preparation and athletics work during the training sessions were located under the stand. The size and position of these areas, however, were no longer suitable for the various preparation activities. This is why, apart from installation of a new playing surface, work on the Ricci stadium included the building of a new changing room with bathrooms and showers, a gymnasium where the players carry out preparation sessions, a medical area where players receive medical assistance, an office for technical activities and another area for post-training activities.

A prefabricated unit with an essential architectural form

The idea behind the design was for a prefabricated unit with a simple architectonic form and pure geometric lines so that it did not contrast with the structure of the stadium and, at a later date, could be completely dismantled.

All the materials used to build the unit were chosen for their low impact on the environment. The upgrading of the electrics and water and heating systems reduced their impact on the environment to a minimum. A new photovoltaic plant, solar panels and a unit with a heat pump were also installed.

TOPCEM PRONTO pre-blended, ready-to-use, controlled-shrinkage mortar was used for building the substrate.

ECO PRIM T solvent-free acrylic primer with a very low emission level of volatile organic compounds (VOC) was used to improve adhesion of a levelling layer made from ULTRAPLAN ECO self-levelling smoothing mortar with a low emission level of VOC.

Pressed, homogeneous vinyl tiled flooring was laid in the changing room and gymnasium with ULTRA BOND ECO V4 SP multi-purpose adhesive in water dispersion with very low emission level of VOC for resilient flooring.

The internal walls, made from plasterboard with Rockwool in the wall cavity, were skimmed with PLANITOP SMOOTH &

The ENZO RICCI STADIUM in Sassuolo has just one spectator sector, the covered central stand

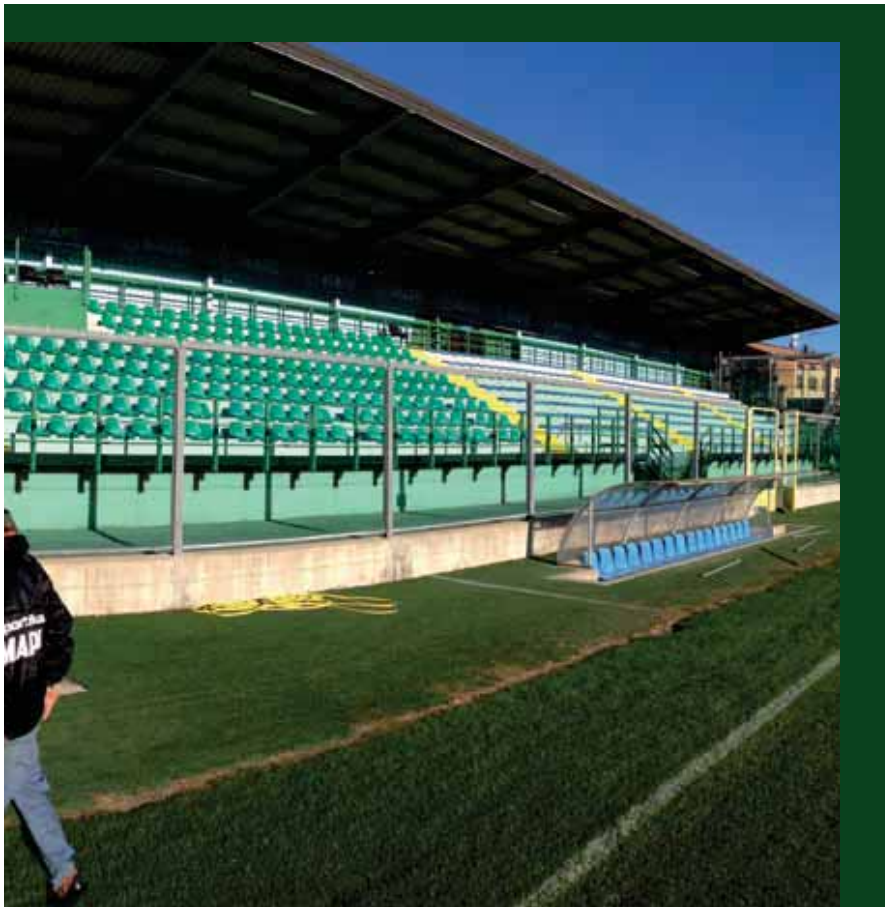
REPAIR fibre-reinforced, controlled-shrinkage, quick-setting, thixotropic cementitious mortar. The final phase of the intervention was to smooth over all the surfaces with MAPE-ANTIQUE FC CIVILE fine-grained, transpirant skimming mortar based on lime and Eco-Pozzolan.

New functional areas for training and cooling down

The surfaces in the shower and service areas were waterproofed with MAPELASTIC AQUADEFENSE ready-to-use, ultra-quick drying, flexible liquid membrane. MAPEBAND alkali-resistant rubber tape with felt was used to seal and waterproof the fillet joints. Mosaic was installed on the floor and walls with ELASTORAPID two-component, highly deformable cementitious adhesive. The joints were grouted with KERAPOXY CQ two-component, anti-acid epoxy grout, easy to apply and with excellent cleanability.

Traces of the grout were removed with KERAPOXY CLEANER, cleaning solution for epoxy grout. The ceiling and walls in the old changing room, which is now used for massages, were painted with DURSILITE washable water-based paint

The terraces in the stand were also restructured. After treating the surfaces with PRIMER SN and MAPECOAT I 600 W primers, a coat of MAPEFLOOR FINISH 55 two-component, aliphatic,



BELOW. Building the new prefabricated unit for the gymnasium and changing rooms. TOPCEM PRONTO was used for preparing the screed.

ABOVE. The inside of the gymnasium and changing rooms upon completion of work. The vinyl tiled flooring was installed with ULTRABOND ECO V4 SP.

highly flexible polyurethane finish with high resistance to wear and UV rays was applied. To get a more attractive finish MAPECOLOR PASTE (a coloured paste available in 19 different colours) was added to the latter product.
All the anchorages for the metal structures in the prefabricated unit were made from MAPEFILL expansive fluid mortar. All the tinwork and the corrugated metal roof were sealed with MAPETAPE. These self-adhesive bituminous tapes, with a prepainted protective film in aluminium or natural copper, have been developed to seal and waterproof all types of breaks or interruptions on flat and sloping roofs.

Technical Data

Enzo Ricci Stadium, Sassuolo (Italy)
Year of Construction: 1972
Year of Mapei Intervention: 2013
Client: U.S. Sassuolo Calcio
Project and Works Director: Marco Manzoni
Contractor: Modulcasa Line SpA
Mapei Co-ordinators: Marco Manzoni and Carlo Rossi, Mapei SpA (Italy)

Mapei Products

Preparing the substrate: Topcem Pronto, Eco Prim T, Ultraplan Eco
Laying vynil floorings: Ultrabond Eco V4 SP
Smoothing and levelling plasterboard walls: Planitop Smooth & Repair, Mape-Antique FC Civile
Waterproofing surfaces in bathrooms and service areas: Mapelastic Aquadefense, Mapeband
Laying and grouting mosaics: Elastorapid, Kerapoxy CQ, Kerapoxy Cleaner
Restructuring the terraces in the stand: Primer SN, Mapecoat I 600 W, Mapefloor Finish 55, Mapecolor Paste
Anchoring metal elements and sealing the tinwork: Mapefill, Mapetape

For further information see www.mapei.com

ASSESSMENT TESTS

The players of the Sassuolo football team are periodically assesed with a series of tests monitored by the specialised staff at Mapei Sport Research Centre.
The aim of the tests is to optimise the physical performance levels of the players and reduce the frequency of injuries by identifying their major risk factors.
The photo at the bottom shows a test aimed at quantifying a player's capacity to withstand changes in direction.
The photo below shows a test to determine the neuromuscular functionality of the quadriceps muscles.

MAPEI STADIUM Città del Tricolore was formerly called Stadio Città del Tricolore and Stadio Giglio in earlier times

MAPEI STADIUM

Revamp and restoration of the Reggio Emilia stadium

On the 5th of December last year, Mapei was officially nominated as winners in the auction for the purchase of "Mapei Stadium - Città del Tricolore" in Reggio Emilia (Italy). It was confirmation of the Group's wish to further consolidate what was already a very close relationship with the Reggio Emilia territory, in Central Italy. It all started last summer when the stadium was chosen for the home games of the Sassuolo football team, with the choice to name the facility "Mapei Stadium" and upgrade it to the standards set by the Italian Professional League Serie A. The choice to keep "Città del Tricolore" (The City of the Red, White and Green) in the name of the stadium is a reminder of the history of Reggio Emilia (where the three-coloured Italian flag was born) and expresses a firm wish to maintain this close bond with the surrounding territory, an important production hub for the ceramics world. A world with which Mapei Group has always had a close bond, not only through the U.S. Sassuolo football club, but also thanks to the company's production and commercial facilities in constant growth. The purchase of the Mapei Stadium may be considered, therefore, an important result, not only for U.S. Sassuolo, but also for the other local football team A.C. Reggiana Calcio and the entire city of Reggio Emilia. With all the improvements that have been carried out to the pitch itself and to the structure of the stadium, as well as a revamp and restoration of the changing rooms and hospitality and press areas, the stadium now meets the requirements of both home teams, may host the Italian Under-21 football team and can hold important events, such as the TIM Trophy. Further work is planned for the near future to make the structure even more welcoming.

A cutting-edge stadium

The Mapei Stadium is the main sports arena in the Reggio Emilia area and is used for various sports, although the main activity is still football: it is now the setting for the home games played by the local team, Reggiana, and Sassuolo. It is similar to a typical English football stadium, with the covered stands and terraces with firm-backed spectator seats close to the pitch. It is also the first example in Italy of a modern stadium owned by the club sponsor. The project, which dates back to 1994, was executed in less than eight months. When it was inaugurated, it was a cutting-edge stadium on the panorama of Italian football. The following 15th of November, the stadium hosted the only game ever played by the Italian football team in Reggio Emilia: Italy-Lithuania. When the Reggiana club went bankrupt in 2005, the stadium was put up for auction. After a first auction without a winning bid, the executors held a second auction last year on the 5th of December, 2013. Mapei managed to win the auction for this prestigious sports arena which, in the 2013-2014 season, has once again hosted Serie A games with the newly-promoted Sassuolo team sponsored by Mapei, that chose it as its new home ground.

Revamping and restoring

A grandiose upgrading project has been initiated at the Mapei Stadium, with work carried out on the pitch (including laying synthetic grass around the edge of the pitch, extending the team benches and adding new giant screens) and the stadium's structure itself.

On the 10th of September, 2013, the request from the Reggiana and Sassuolo clubs to increase the spectator capacity of the stadium to 23,317 by increasing the capacity of the North Bank and the stands was approved.

Mapei products used at 360°

The first work to be carried out was to place the wording "Mapei Stadium" and to insert the Mapei logo. This occasion was also used to repaint various parts of the stadium, from the façades to the main stands and hospitality areas. The surfaces were treated with PRIMER 3296, an acrylic primer in water dispersion with consolidating and anti-dust properties. ELASTOCOLOR PAINT flexible, decorative, protective paint was used to colour the surfaces.

The areas around the pitch were redone using the same solution adopted for the Meazza Stadium in Milan. With an eye on sustainability, MAPESOIL technology was adopted to prepare the substrate using MAPESOIL 100 and MAPESOIL VD.

The adhesive ULTRABOND TURF PU 2K was used to bond the panels of synthetic grass sheets. All the terraces were sealed

TO THE LEFT. The flooring in the access area for the VIP stand was redone using MAPECOAT TNS URBAN.
CENTRE. The terraces were sealed with MAPEFLEX PU 40.
TO THE RIGHT. The outside of the players' tunnel leading to the pitch was also revamped using Mapei products.

Laying of synthetic grass around the edge of the pitch.

with MAPEFLEX PU 40 polyurethane sealant with a low modulus of elasticity.

The outside of the players' tunnel leading to the pitch was also revamped: the screed was made using TOPCEM and the cracks were sealed monolithically with EPORIP. The last step was to treat the surface with MAPEFINISH HD two-component cementitious mortar with high resistance to sulphates.

To improve access to the VIP area of the stands from the bar, it was decided to lay a new resin flooring with a glitter effect. This work included the use of PRIMER SN, MAPECOAT TNS URBAN and MAPEGLITTER in its silver shade, with a finishing coat of MAPEFLOOR FINISH 53W.

To improve the hospitality areas, the furnishing in the booths and bar were replaced and all the walls were painted with DURSILITE washable, water-based paint with low dirt pick-up for internal walls.

Lastly, the changing rooms were completely restructured and redecorated. In these areas the flooring substrates were initially treated with ECO PRIM T solvent-free primer and then with NIVORAPID thixotropic, quick-drying cementitious smoothing compound, suitable also for vertical surfaces. Installation of the PVC flooring was completed with ULTRABOND ECO V4 SP multi-purpose acrylic adhesive in water dispersion with a very low emission level of volatile organic compounds (VOC).

Technical Data

Mapei Stadium - Città del Tricolore, Reggio Emilia (Italy)
Year of Construction: 1995
Year of Mapei Intervention: 2013
Client: Sassuolo Calcio
Works Direction: Marco Manzoni, Elisa Portigliatti
Company: Indalgo Service Srl
Laying Company: Ceis Impianti Sportivi Srl
Mapei Co-ordinators: Marco Manzoni, Carlo Alberto Rossi and Elisa Portigliatti, Mapei SpA (Italy)

Mapei Products

Laying resin floors: Primer SN, Mapecoat TNS Urban, MapeGlitter, Mapefloor Finish 53P
Preparing the substrates and painting the hospitality areas: Primer 3296, Elastocolor Paint
Rebuilding the substrates and laying synthetic grass: Mapesoil 100, Mapesoil VD, Ultrabond Turf PU 2K
Sealing joints on the terraces: Mapeflex PU 40
Revamping the outside tunnel: Topcem, Eporip, Mapefinish HD
Laying PVC floors: Ultrabond Eco V4 SP, Eco Prim T, Nivorapid.

For further information see the website www.mapei.com

BELOW. U.S. Sassuolo's changing rooms (left) and A.C. Reggiana's changing rooms (right)

Sassuolo is winning plenty of new friends

Lots of communication projects for being with and in the team

A passion for sport and sharing of the deep-seated values that underscore it are an integral part of Mapei's corporate philosophy. The company has always been engaged on several fronts: both in promoting - through the Mapei Sport Centre in Olgiate Olona (Northern Italy) - research applied to sport and in supporting teams and athletes in various different disciplines.

Just as in the past the magnificent performances of the Mapei Professional Cycling Team made the company a familiar name all over the world, now it is Sassuolo football team that has taken over this role. A growing number of fans are showing a keen interest in the team from Emilia Region (Northern Italy), which is competing in the Italian first division (Serie A) for the very first time this year. Getting promoted to the Italian first division with the aim of staying there is an important goal for Mapei. Sassuolo's experience in Serie A is a chance to gain even greater recognition and establish even closer bonds with the city of Sassuolo, enjoying a year of sport in the company of so many friends, partners and customers.

Mapei is, in fact, the Main Sponsor of Sassuolo with all the numerous benefits that entails: from public relations and the establishing of business contacts connected with dedicated projects involving commercial promotions, to the visibility of the brand at the stadium, training ground, in the media and on the official team kit, and also notable visibility through extensive media coverage.

Mapei is allowed to promote its own corporate brand and the brands of its products with incisive messages displayed around the edge of the playing field for all the team's home games during the 2013/2014 season.

Mapei guests are given a warm welcome and truly 'first division'

reception. As well as customised Mapei reserved seats, a Mapei reception point has been set up at the entrance to the main stand complete with distinctive totem displays and hostesses.
Dedicated projects allow Mapei guests access to the off-limits sectors of the stadium, so that they can see how the staff work and get to meet the players. Younger guests even get the unique chance to go out onto the pitch together with the referees and two teams as they line up before the start of the match.

Walk About, Sponsor Day and Match Sponsor
Another marketing enterprise connected with the sponsorship of Sassuolo is the so-called "Walk About", enabling a selected number of Mapei guests to enjoy a tour of the entire stadium, seeing what happens backstage during a first division football match and meeting the players closer up.
As well as visiting all the different areas of the stadium before the team's warm-up, there is also a tour of the teams' changing rooms and the opportunity to have your photograph taken with the players and get their autographs. A number of gadgets are also available, along with the chance to win an autographed team shirt; guests can also watch the match from special reserved seats and are offered a photo reportage as a special souvenir of a memorable day.
Mapei will also have the chance, on three separate occasions, to invite guests to Ricci Stadium in Sassuolo (see the dedicated article in this issue of the magazine) for a special tour of Sassuolo's training centre and the opportunity to watch the team train, meet the players and have lunch at the training centre.
The Match Sponsor deal is another powerful means of communication for Mapei: a home game entirely devoted to the sponsor, including extra visibility on local means of communication and the chance to invite your own guests to watch a game from the stands.

The first half of Sassuolo's debut season

They are off again, in the wake of the "fantastic 4", to win again and remain amongst the greats

Sampdoria – Sassuolo 3-4

AN IMPORTANT VICTORY FOR THE TEAM'S MOTIVATION

Sassuolo – Bologna 2-1

THE FIRST HISTORICAL VICTORY IN SERIE A

Sassuolo – Milan 4-3

AN EXCITING GAME WITH A POKER BY BERARDI

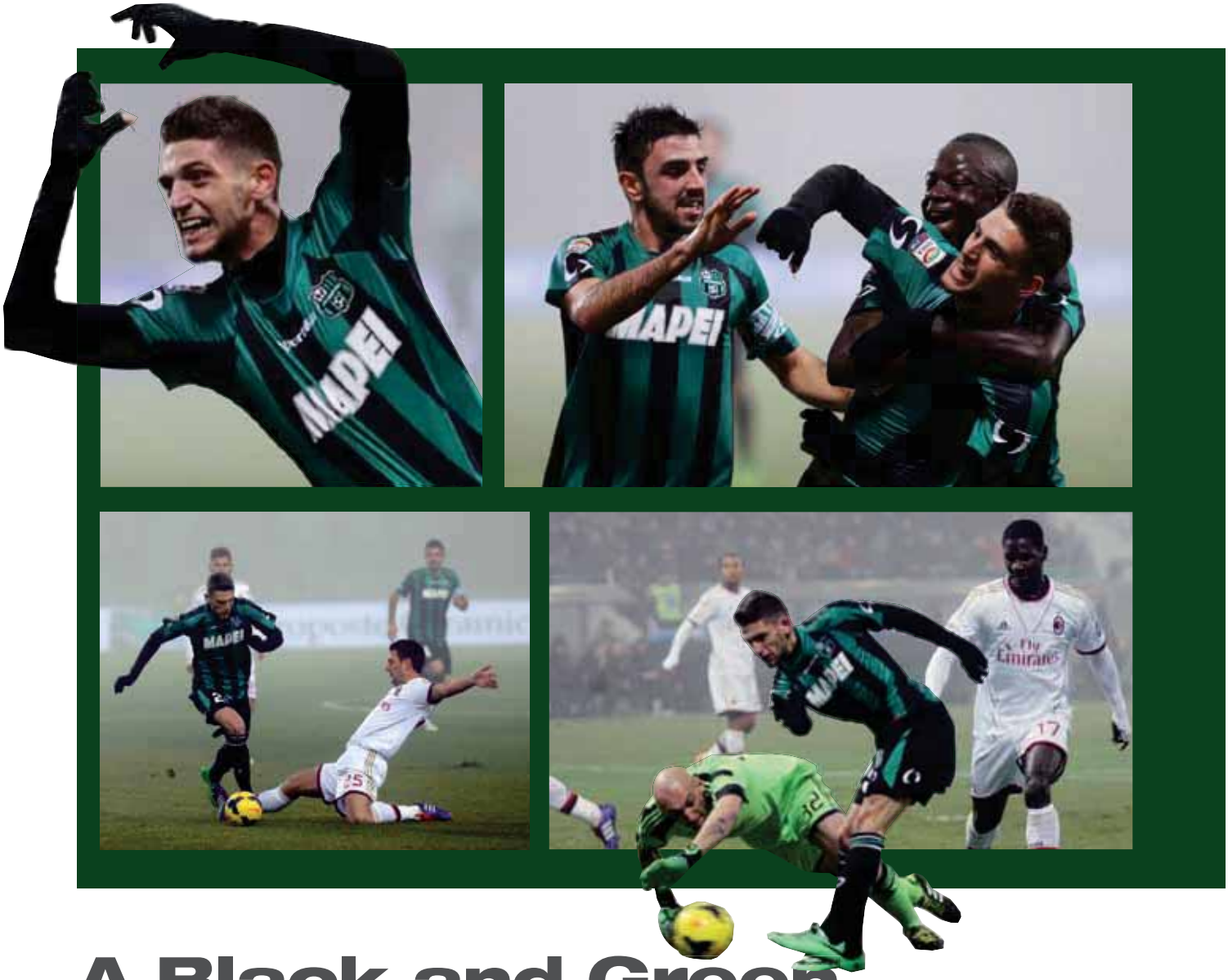
Joy and passion right up until the final whistle. This is the summary at the halfway point of Sassuolo's debut season in Serie A. The team with the Mapei logo closed the first half of their season with 17 points, the fruit of 4 victories, 5 draws and 10 defeats. The Black and Greens are out of the relegation zone.

The three points that earned the club "virtual safety" came from the game against AC Milan at the Mapei Stadium in Reggio Emilia (Italy), an historical evening with all four goals scored by Domenico Berardi, and thanks to a memorable performance by the whole team. The final score was 4-3. Everyone knew that the team's impact with Serie A would have been difficult; and so it has proven to be. In their first game in the championship, away to Turin, the Black and Greens lost 2-0. The next game saw their debut home appearance in Serie A against Livorno, losing 4-1. In their third game, against Verona, Sassuolo lost again by 2 goals to nil. The team was then trounced by Internazionale F.C., with a score of 7-0 at Reggio Emilia.

During the following game in Naples, the team, after losing the initial advantage with a goal from Dzemaili, earn a draw with a goal from Zaza. In the following game at the Mapei Stadium the team fought back from a two-goal deficit against Lazio (2-2). Away to Parma, however, Sassuolo were defeated 3-1. The first victory in Serie A came in the next home game against Bologna, winning 2-1. And then in their next away match, against Catania, the Black and Greens earned a point. In the tenth game of the season the team lost 2-1 at home against Udinese. In the game played in Genoa against Sampdoria, Sassuolo won 4-3. The Black and Greens then played their second consecutive away game, against top-of-the-table Roma, and was the first team in the season to come away from Rome's Olympic Stadium undefeated.

In the next match at the Mapei Stadium the team won 2-0 against Atalanta. In the next game, away to Cagliari, Sassuolo succumbed with two goals in the last fifteen minutes. The team lost at home against Chievo 1-0, and in the next game, at the Juventus Stadium, they lost 4-0 against the Black and Whites, at the time top of the table. In the 17th game, played at home in Reggio Emilia, Sassuolo threw down the gauntlet to Fiorentina, and managed to neutralise the Purples for more than an hour before losing. The team then lost 2-0 against Genoa. After 4 consecutive defeats without scoring, it was the victory against AC Milan that put the season back on the right track and gave hope for the future.

Sassuolo is now still in with a shout and ready to fight for the whole of Mapei and the increasing number of sports fans that are being swept away by the energy of the Black & Greens.



A Black and Green star has blossomed

The fairy-tale story of Domenico Berardi, a player that has grown with the Sassuolo team, and his incredible desire to score

No matter how the season ends, one memory that will always remain over the years is Sassuolo's incredible feat against AC Milan on 12th January, 2014.

Behind by two goals after just 13 minutes in the last game of the first half of the season, the team managed to find the back of the net 4 times against the Black and Red Devils. The author of this wonderful poker was the nineteen year old Black and Green striker Domenico Berardi.

The Sassuolo team hadn't scored for quite some time, yet managed to score three in little more than twenty minutes, and then completed the job after the break. It was a magical evening for this Italian boy who, at just 19 years, 5 months and 10 days of age, managed to score 4 goals in a single game. And four goals against AC Milan is something nobody had ever done before.

Berardi has already scored 11 times during the first half of Sassuolo's season in Serie A. Sassuolo owes a large part of its success to this young phenomenon. In just his second season amongst the professionals, he is surprising everybody. Except, of course, the staff at Sassuolo and the then manager Eusebio Di Francesco who, in the previous season in Serie B, brought him into the team at just eighteen years of age and saw his trust rewarded with 11 goals in 36 games.

Two years in the youth team guided by Paolo Mandelli, several call-ups to the Sassuolo first squad managed by Fulvio Pea during the 2011-2012 championship, and then his debut game against Cesena on the 27th of August, 2012. From that moment he has held on to his place in the 4-3-3 formation guided by Di Francesco, playing in the attacking wide right of the three forwards, to help Sassuolo win promotion to Serie A.

He has already been called up for the Italian under-21 team managed by Gigi Di Biagio, and if he carries on at this pace Berardi could even become an important player for Cesare Prandelli, the manager of the Italian first team, for the next World Cup Finals in Brazil. But let's keep our feet firmly on the ground. Sassuolo must carry on fighting and growing if they want to keep playing football with those who really count.

U.S. SASSUOLO

The courage to make changes


28 CANNAVARO


21 MANFREDINI


16 BIONDINI


9 FLOCCARI


22 BRIGHI


17 SANSONE


6 ARIAUDO


33 MENDES


87 ROSI


99 POLITO

MANAGER


MALESANI

With ten new signings and eight players transferred to other clubs on the winter transfer market U.S. Sassuolo (the football team sponsored by Mapei) has changed its line-up and strengthened its ranks with the aim, clearly stated at the beginning of the season, of staying in the Italian first division. While all this has been going on there has also been a change of manager with the highly experienced Alberto Malesani taking over from Eusebio Di Francesco. As one newspaper quipped with reference to this unprecedented foray onto the transfer market by the team owned by Giorgio Squinzi, CEO of the Mapei Group, "Staying up is certainly worth a revolution!".

So there are ten new arrivals (shown on the left) to reinforce the rest of the squad composed of Alberto Pomini, Raffaele Pucino, Alessandro Longhi, Francesco Magnanelli, Luca Antei, Simone Missiroli, Luca Marrone, Simone Zaza, Marius Alexe, Gaetano Masucci, Francesco Acerbi, Paolo Bianco, Marcello Gazzola, Domenico Berardi, Emanuele Terranova, Yussif Raman Chibsah, Diego Farias Da Silva, Gianluca Pegolo, Antonio Floro Flores and Reto Ziegler.

The manager Alberto Malesani's new assistants are Ezio Sella (assistant manager), Paolo Aiello and Antonio Raione (technical staff). The aim is to start again in grand style, so that the city and all the fans, who continue to believe that this first experience on the most important stage in Italian football has to end well, get what they deserve. The guidelines inspiring Sassuolo's venture onto the January transfer market called for experienced and physically tough players. "We now have a top-notch squad that must enable us to achieve our aims - so the green-and-blacks' general director, Nereo Bonato, stated - None of this has been improvised, everything was carefully planned: having established our priorities and what we needed to do, we took appropriate action". A strategy which, while the absolute priority was to stay in the top division, looks ahead to the future. As Bonato went on to say "we have tried to lay the foundations for the team of the future with ten new signings and two young players (Sanabria and Zapata) that has allowed us to set up a synergy with clubs on the international market: these partnerships will bear good fruits". After a tricky first half of the season with the occasional outstanding results, the team is now ready to avoid relegation. There is still time, there is still hope of climbing up the table, but we must believe we can do it, really believe it until the very end. Come on Sassuolo, get back on your feet and fight to the finish: the dream you have given us is too precious for it to disappear, try and keep the dream alive and give us a happy ending.

Ultrabond Turf PU 1K

(*)Certified by the GEV Institut as EC1 R

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