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Realtà MAPEI

ISSUE 76

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ADRIANA SPAZZOLI
Realtà Mapei International's
 Editor-in-chief

Olympics 2026: time for Italy to start building

**SPORT CAN BRING
 PEOPLE TOGETHER
 AND BREAK DOWN
 BARRIERS**

**MAPEI IS EXPANDING
 ITS OPERATIONS IN
 THE USA, A MARKET
 THAT IS STILL
 GROWING IN 2019**

Dear readers,

Italy has been awarded the 2026 Winter Olympics to be held in the cities of Milan and Cortina. It was an “Italian” victory because, for once, the people of Italy overcame political division, personal interests and parochialism. It was further proof (if any was required) of how sport can bring people together, break down barriers, and foster peace and friendship between nations. Italy must now take this (unique) opportunity to inject fresh input into its rather stifled economy that is currently only showing very weak signs of growth.

Organising an Olympics is, above all, an opportunity to invest in building and infrastructures that have always been key drivers behind growth in Italy.

The prospects appear to be good and, according to initial reports, the Olympics should add 2.3 billion Euros to the GDP over the period from 2020 to 2028. Considerable economic impact and a real boost to the “nation of Italy’s” image, as it gets the chance to showcase the very best it has to offer: its natural beauty, artistic heritage, food culture and design industry. The Olympic Games could, then, mark the start of a fresh period of expansion for an economy that is moving at a snail’s pace (when it is not at a standstill), particularly in the building industry.

Meanwhile, it is worth mentioning the record-breaking (in terms of cast concrete) project for Galeazzi hospital in Milan, which we will be covering in this issue of *Realtà Mapei International*. An issue in which we will also be looking at the “great” US market (to which we will be devoting an over 20-page special) where Mapei has been operating through various research centres, offices and manufacturing plants for many years. Alongside this well-established market we will also be examining the Hungarian market that has such great prospects for growth: a nation where Mapei has already set up new production lines and launched new products.

Enjoy your reading... and your holidays!

Adriana Spazzoli

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IL CALCIO È DI CHI LO AMA

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COVER STORY
The 28th of May this year marked the end of one of the largest continuous massive concrete pours in the world to form the foundations of the new Galeazzi Orthopedics Institute in Milan.

© Gianni Dal Magro

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SAVE THE DATE



22nd - 29th September
Yorkshire (UK), UCI Road World Championships

NEXT AUTUMN MAPEI WILL TAKE PART IN SEVERAL TRADE FAIRS.
COME AND VISIT OUR STANDS!!



23rd - 27th September
(Gallery 25-26)
BOLOGNA



25th - 28th September
(Stand E2, Hall 7)
VERONA

Final farewell to Giampiero Pesenti a leading Italian businessman

"Giampiero Pesenti's passing means that Italy loses one of its leading figures in post-war economic history. Giampiero Pesenti was one of the most important Italian businessmen and financial operators, who set the bar for everybody. He was an enlightened member of those ruling classes that made our country great. We have so much to learn from his hard work and intelligence and we need to follow his example if Italy is to have the kind of future we all hope for".

That is how Mr Giorgio Squinzi (CEO of the Mapei Group) remembered Giampiero Pesenti, who passed away on 24th July, at the age of 88, in his home city of Bergamo (Northern Italy). Starting from Bergamo, Mr Pesenti made Italcementi (a company with a history dating back over 100 years from when it was originally founded in 1864) a global player, an international giant in the cement industry. Giampiero Pesenti took control of the company in 1984 after his father Carlo passed away: he first began working for the firm as an employee in one of the group's cement works back in 1958 after graduating from Milan Polytechnic. Within a few years he reorganised the group's business activities, which ranged from insurance to newspapers, by carrying out all the necessary decommissioning and rationalisation operations and focusing on the core business of cement.

The turning point that made Italcementi an international player happened in 1992 through the acquisition of Ciments



Français, an operation carried out with the backing of Mediobanca. The French group was actually twice as big as Italcementi; Mr Pesenti made one of Italy's most important foreign acquisitions allowing the Bergamo-based group to triple its income (its turnover increased from 1500 billion lire to over 5000 thousand billion) and become one of the world leaders in the cement industry. The group completely changed face; the Italian market's contribution to its income dropped from 97% to less than 30%, the number of cement works increased to 51, and staff across 21 nations reached a

figure of 20,000. It began doing business worldwide: from Italy and France to the United States and Asia.

Mr Pesenti carried out this acquisition in France with the backing of Mediobanca, which, since he took over in charge of the group, has been a decisive financial reference point in industrial decision-making. In the 1980s Italcementi held 2% of Enrico Cuccia's Mediobanca, a real crossroads for the Italian financial world.

Giampiero Pesenti was a captain of industry but he was also an important financial operator. With his company Italmobiliare he gained shares and positions on the board of many companies ranging from Mediobanca and Falck to Fiat, Montedison, Credito Italiano and Pirelli. He also took over the chair of Gemina, the holding group of RCS (and hence the Italian newspaper *Corriere della Sera*) responsible for the union agreement between the publishing house's main partners.

As his business career ascended from Bergamo to Europe and the rest of the world, Giampiero Pesenti always claimed that he wanted to hold onto his Bergamo roots as he explored the world.

A new period in the history of Italcementi began on 1st July 2016. The company is now part of HeidelbergCement Group, the world's leading global player in the supply of cement that employs over 62,000 staff in over 3000 manufacturing plants.



SQUINZI: "HE WAS A KEY PLAYER IN THE RULING CLASSES THAT MADE ITALY GREAT"

ONGOING INFRASTRUCTURE PROJECTS IN ITALY

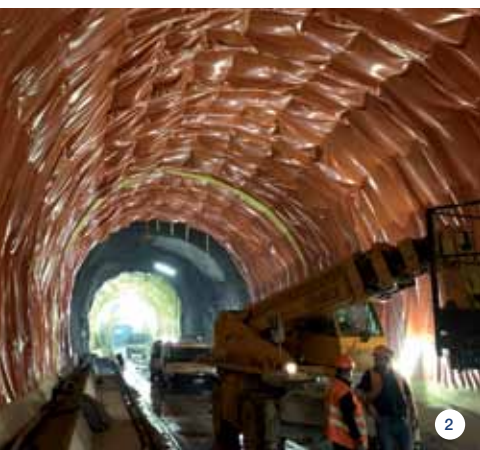
THERE ARE SIX ONGOING LARGE PROJECTS IN ITALY AT THE MOMENT. AND WORKING ON SITE THERE IS ALSO MAPEI



1

1. PEDEMONTANA-VENETA MOTORWAY.

With an overall cost of more than 2 billion Euros, 19 exit junctions and almost 50% of site work already underway, this motorway in Northern Italy is considered one of the most important road infrastructures under construction in Italy. Once completed, the planned 94 km of expressway will be the only expressway in Italy that applies a toll charge and the first 7 km were opened at the beginning of June.



2

2. BRENNERO BASE TUNNEL.

Once completed in 2027, the 64 km-long Brennero Base Tunnel (BBT) will be the longest underground railway tunnel in the world. The flat-lying railway corridor will cross through the Alps between Innsbruck (Austria) and Fortezza (Italy), with two parallel tunnels connected every 333 m, and will run under the Brennero pass (1,371 m) at an altitude of 794 m.

Construction is at an advanced stage along the Italian stretch of the line. At the end of July 2019, 105 km of the 230 km of main tunnels and service and emergency tunnels had been excavated. Mapei is also working on major sites where construction work is being carried, by supplying numerous products, including the super-plasticising admixture DYNAMON SR1/AV, the MAPEPLAN waterproofing system and MAPEQUICK AF 350 accelerator.



3

3. MORANDI BRIDGE – GENOVA.

According to the schedule, work on the new bridge substituting the Morandi Bridge (which is shown in the photo to the left and partially collapsed on the 14th of August 2018) should be completed by late 2019. The new bridge has been designed by Renzo Piano. The structure will be made from steel and will have a continuous girder measuring 1,100 m. It will have 20 spans, with reinforced concrete piles with an elliptical section every 50 metres, apart from the span over the River Polcevera

and the one over the railway line, which will both be 100 m. Mapei will supply a series of products (admixtures and form-release compounds) that are in the process of being defined.

4. THE GIOVI RAIL LINK.

The new, high-capacity Tortona/Novi Ligure-Genoa railway line will increase the capacity of the connections between the Liguria ports system (Central Italy) and the main railway lines in the north of Italy and the rest of Europe. The line is part of the Rhine-Alps Corridor, part of the strategic Trans-European transport network connecting the most densely populated and most industrialised regions of Europe. 35% of work has been completed, for a cost of 1.7 billion Euros out of a total of 6.2 billion, and the whole project is scheduled to be completed in 2023.

5. TURIN-LYON (CROSS-BORDER SECTION).

The New Turin-Lyon Line is a 235 km international railway line for goods and passenger traffic that will connect Turin to Lyon and will run alongside the existing line that runs through the Frejus rail tunnel. If we take into consideration the cross-border section, which makes up Stage 1 of the entire link, according to official figures issued by Telt (Tunnel Euralpin Lyon Turin) in July 2019, "18% of the 162 km of tunnels for the project have already been excavated".

6. NAPLES-BARI HIGH SPEED RAILWAY LINE.

Work along this railway line got underway after being suspended for a long period of time, thanks also to the release of funding for 1,280 billion Euros. The line is an integral part of the European TEN-T Scandinavian-Mediterranean Rail Corridor, which consists in doubling the current line and making it faster, in order to increase the capacity and frequency of trains and improve accessibility to the territory. Work on the first, 15.5 km-long double-track stretch is ongoing, for an investment during the first phase of around 400 million Euros.



4



5



6

THE FIGURES OF THE POUR

7

MIXING UNITS

10

LOADING POINTS

6/8

PUMPS WORKING AT ONE TIME TO PLACE THE CONCRETE

85

MIXER TRUCKS

30

TECHNICIANS AND MAINTENANCE ENGINEERS

80,000

TONNES OF SOLID COMPONENTS

200

TONNES OF LIQUID ADMIXTURES

32,836

M³ CONCRETE SUPPLIED



Milan (Italy) RECORD-BREAKING CONCRETE POUR

ONE OF THE LARGEST CONTINUOUS MASSIVE
CONCRETE POURS IN THE WORLD TO FORM
THE FOUNDATIONS OF A NEW HOSPITAL IN MILAN

The 28th of May this year marked the end of placing the largest ever concrete foundation slab in Europe: 33,000 m³ of concrete pumped non-stop for 94 hours by a total workforce of 106 working round the clock for Unical, the concrete supplier. The new Galeazzi Orthopaedics Institute is being built in the area of Milan that hosted Expo 2015. Once completed it will have 16 floors and will reach a height of 90 m, for a total surface area of 150,000 m². The new structure will encompass the

skills and specialisations of two Institutes from the San Donato Hospital Group within one single complex: the IRCCS Galeazzi Orthopaedic Institute and the Sant'Ambrogio Institute. The building is being constructed on a seamless foundation slab measuring 190x50 m with a thickness of up to 3.5 m. The record recently established was for one of the largest volumes of placed concrete ever achieved in the world, by using mixing units just outside the site.



33,000 m³ of concrete were pumped non-stop for 94 hours last May to build the foundation slab of the hospital.





A special, bespoke concrete was designed for the pour. The new Galeazzi Orthopaedics Institute is being constructed in the former Expo area in Milan.

A TEAM EFFORT FOR MADE-TO-MEASURE CONCRETE

Mapei was commissioned by the Works Direction to use its mobile laboratories to take samples and carry out tests on the fresh concrete (slump-flow, J-ring, V-funnel) and to assist during the various preliminary phases prior to carrying out the pour: the design stage, development of the right mix-design, organisation of site logistics, defining the testing schedule and acceptance criteria and monitoring of the concrete after it had been placed.

A special, bespoke concrete was designed for the massive concrete casting which had been carefully developed and modelled using analytical tools to verify its behaviour in terms of temperature trends and rheological characteristics.

Unical Technical Services Department designed the mix so that, once all the components had been charged into the various mixing units, the preparation phase could be completed, and the concrete could be checked when it arrived on site. Two check-points were set up on site and, when the concrete was delivered, staff from the Unical Technical Services Department checked each mixer truck to make sure each batch complied with the specified rheological properties.

DYNAMON XTEND W500 N was used to achieve the results required, an acrylic super-plasticiser for concrete of the latest generation, specifically formulated to mix concrete with a low water/cement ratio and a good maintenance of workability.

Thanks to its special, innovative formulation, DYNAMON XTEND W500 N is an efficient agent used to disperse cement particles, so that the amount of water required for mixing is considerably reduced.

Compared with normal concrete without an admixture, DYNAMON XTEND W500 N allows to design concrete mixes with more than 20% less water, a good workability time, and negligible loss in workability while being transported and unloaded on site.

This admixture was used together with DYNAMON EW, an admixture based on modified acrylic polymer that allows to extend the workability of concrete for extended periods, and MAPETARD, a liquid set-retarding admixture for concrete with low slump loss.

TECHNICAL DATA

Galeazzi Orthopaedics Institute, Milan (Italy)

Period of construction: 2019 and on-going

Period of the intervention: 2019

Intervention by Mapei:

supplying admixtures for concrete

Client: Real Estate Gruppo Ospedaliero San Donato

Design: Binini Partners Architects

Contractor: Edile Engineering & Construction SpA

Concrete supplier: Unical SpA

Mapei coordinators: Massimiliano Nicastro, Andrea Siboni, Pietro Lattarulo, Mapei SpA (Italy)

MAPEI PRODUCTS

Admixtures for concrete: Dynamon Xtend W500 N, Dynamon EW, Mapetard

For further information on products visit www.mapei.com

Sustainable concrete with recycled aggregates

RETURNED CONCRETE WAS USED TO BUILD A NEW CARPARK AT PANORAMA PARK IN IZU NAGAOKA, JAPAN

The Izu peninsular overlooks the Pacific Ocean around a hundred kilometres to the south of Tokyo and forms a division between the Bay of Suruga and the Bay of Sagami. It was designated a protected area and geological park by Unesco in 2018 and is characterised by its hills and features of volcanic origin covered by rich, lush vegetation.

From Izu Nagaoka, a town with around 50,000 inhabitants, you can take the Panorama Park cable-car to the summit of Mount Katsuragi, where you can admire a view of Mount Fuji on the right and the Bay of Suruga on the left.

Thanks to these particular characteristics the summit of Mount Katsuragi attracts tens of thousands of tourists every year and, with the Izu peninsula being the site for the indoor cycling events of the 2020 Olympic Games, the number of visitors is expected to increase.

In preparation for the event, the company that manages the cable car decided to extend the carpark at the departure station by 1,500 m².

The extension to the carpark was made from Roller-Compacted Concrete (RCC), an ultra-dense type of concrete which is placed using the same equipment as for asphalt road surfaces. By using this kind of concrete, there is no need to use formwork or steel reinforcement in order to pro-

duce concrete surfaces which, apart from requiring a very simple construction technique, also have particularly high mechanical properties and durability.

The mix for the concrete (cement, aggregates and a small amount of water) has to be prepared in special mixing units that disperse the water evenly throughout the mix so that it forms a consistency similar to that of damp earth.

The fresh concrete is then transported to site on trucks where it is offloaded, spread out and distributed in layers of between 10 and 20 cm thick.

Compaction, made by vibrating rolls, is the most important phase in the production of RCC because it has to guarantee the correct density, strength, flatness and homogeneity of the concrete surfaces.

The surfacing then has to go through a curing process to ensure its mechanical characteristics develop correctly.

AN INNOVATIVE PROCESS

The need to safeguard the environment around the cable-car station meant all the work carried out had to have the minimum impact on the environment and the maximum use of recycled materials.

This is why it was decided to make the surfaces for the new

➤ **RE-CON ZERO EVO
ALLOWS TO RECOVER
ALL RETURNED
CONCRETE BY
TRANSFORMING IT
INTO AN AGGREGATE
MIX TO BE USED AGAIN**

THE PHASES OF THE INTERVENTION



carpark using RCC with low cement content and only recycled aggregates from the recovery process of returned concrete, that is, concrete that hasn't been used on site and is returned to the production plant while still fresh.

Returned concrete represents the largest amount of residual material at the concrete manufacturing plant and accounts for around 3% of the total production.

Disposing of returned concrete in landfill sites has a heavy impact on the environment which may be expressed in terms of "equivalent" CO₂ - the gas mainly responsible for global warming - with an impact of 267 kg of CO₂ per cubic metre of concrete.

But now, thanks to the use of RE-CON ZERO EVO, the revolutionary additive developed in the Mapei Research & Development laboratories, it is possible to recover all returned concrete by transforming it, in just a few minutes, into an aggregate mix perfectly suitable to be used again to produce new concrete.

When RE-CON ZERO EVO is added to returned concrete in a mixer truck, or in any other suitable mixing system, in the space of just a few minutes the special additives of the product absorb any free water present and "dry" the concrete, transforming it into a mix of aggregates without generating any waste.

The advantages of this innovative product are clear: the production of aggregates from returned concrete enables the acquisition of natural aggregates to be reduced by a corresponding amount, which in turn limits the depletion of raw materials from natural sources, and it also completely eliminates the use of landfill sites which, in turn, further reduces its impact on the environment by reducing the amount of CO₂ produced.

The new surfaces for the carpark at Panorama Park was carried out by the Nagaoka Ready-Mixed Concrete NR-MIX company, a distributor of RE-CON ZERO EVO in Japan, on behalf of the client, Dainici Izu no Kuni City Panorama Park. Overall, 170 m³ of RCC was placed, with a dose of just 69 kg/m³ of cement and 2,220 kg/m³ of recycled aggregates,



A view of the completed car park

which was achieved thanks to the use of RE-CON ZERO EVO.

Construction of the new carpark for the Panorama Park cable-car in Izu Nagaoka required the use of around 380 tonnes of recycled aggregates from returned concrete, thereby avoiding having to take the same amount of returned concrete to landfill sites, for a saving of around 100 tonnes of CO₂ emissions.

All this was made possible thanks to the use of RE-CON ZERO EVO, the admixture by Mapei enabling the sustainable recovery of returned concrete.

Giorgio Ferrari. Research & Development, Mapei SpA (Italy)

TECHNICAL DATA
Carpark for the Panorama Park cable-car station, Izu Nagaoka (Japan)

Year of intervention: 2018

Intervention by Mapei:

supplying admixtures for producing RCC with recycled aggregates

Client: Dainici Izu no Kuni City Panorama Park

Contractor: Nagaoka Ready-Mixed Concrete NR-MIX

Works direction and supervision:

Mitsuya Myiamoto and Alberto Ferrari

Mapei coordinator: Giorgio Ferrari, Mapei SpA (Italy)

MAPEI PRODUCTS

Admixtures for concrete:
Re-Con Zero Evo

For further information on products see www.mapei.com



3



4

PHOTO 1. Production phase of the Rolled-Compacted Concrete (RCC) used for the new carpark.

PHOTO 2. Offloading and distributing the concrete on site.

PHOTO 3. Compaction phase of the RCC using road-rollers.

PHOTO 4. A close-up of the RCC during the compaction phase with road-rollers. The aggregates made from returned concrete with RE-CON ZERO EVO are perfectly compacted and bound solidly within the cementitious matrix.

USA MARKET

Strategic in Mapei's plans

INTERVIEW WITH VERONICA SQUINZI,
THE MAPEI GROUP'S GLOBAL
DEVELOPMENT DIRECTOR



You are a member of AmCham, could you explain what that is and how Mapei is involved?

Mapei began investing in the USA in the early 1980s and so it was not just inevitable but also a duty for us to become members of the AmCham, American Chamber of Commerce in Italy. The Chamber provides plenty of support for Italian businesses operating on the American market.

In 2012, I was invited to join their Board, which is composed of representatives of major Italian and multinational companies, along with many leading players in the field of strategic and legal consultancy.

Our enthusiasm and pride at being asked to join the Board were given a further boost when, after an acquisition in the USA, Mapei was awarded a prize at the Transatlantic Award Gala dinner in 2013.

For Mapei it is extremely important to be involved in AmCham operations. Events, conferences, networking and business missions are part of the day-to-day workings of the Chamber and its associates.

Over the years it has increasingly come to play a key role for Italian businesses in America and a crucial means of raising Italy's reputation among American investors.

The US economy (and building industry) will continue to grow in 2019: what are Mapei's priorities and plans for the USA market?

The US market is a crucial part of the Mapei Group's internationalisation strategy. The US economy is going through a lengthy period of expansion and we want to continue the upward trend in our business operations, which rose by 8% in 2018 compared to 2017. This year we are aiming to increase sales in the United States by 12%.

The facts and figures about the US economy are quite clear: July was its 120th month of continuous growth, a very long period of expansion that has increased the GNP over this period by 25% and reduced unemployment to 3.6%.

Mapei works in the building industry and the signs coming from this sector are also reassuring; suffice it to say that, again in July, the confidence rating of US builders increased by a further point to reach a figure of 65. We are, therefore, convinced that everything is in place to keep on improving our performance in the United States.

How much is the US market now "worth" for the Mapei Group?

North America (so also including Canada) is a very important slice of the Group's overall income; in 2018 it was worth 720.7 million Euros out of the Group's overall turnover of 2.542 billion Euros, corresponding to a figure of almost 30%, slightly higher than in 2017.

Breaking down Mapei's operations into geographical regions, North America comes first (only just) marginally ahead of Western European countries (672.6 million Euros or 26.5% of the total).

We operate in North America through 22 manufacturing plants and 5 production companies, and over the last 3 years we have invested about 150 million Euros. We acquired GRT, a US company specialising in the manufacture of admixtures for concrete, in 2014.

What effects might the international trade war and US tariffs policy have on Mapei's strategies?

As a global company, we are used to market/cyclic uncertainties and the decisions of international organisms on trade policy: we are not concerned, we are ready to react. We have always done so and we will continue to do so. As regards the issue of US tariffs, the Mapei Group is not directly implicated because our strategy is to manufacture on-site and so any tariffs on imports do not affect us.

Will the huge investments in infrastructures planned by the U.S. government provide a development opportunity for Mapei in the USA?

Yes, the government's infrastructure investments do represent a growth opportunity for Mapei. However, the 200 billion US dollars that President Trump has pledged for infrastructure improvements in his 2020 budget have been tied up in governmental red tape. There must be consensus among the members of Congress before the money is released. We anticipate that after the 2020 presidential elections there will be forward movement, no matter which party wins. Both parties want to see infrastructure improvements - and both want the credit for it. Mapei certainly is eager to see those funds awarded and projects started across the country.

Working more closely with clients

INTERVIEW WITH MARCO SQUINZI,
THE MAPEI GROUP'S RESEARCH
& DEVELOPMENT DIRECTOR



Trade fairs mark the end of a year's work. You attended the most important specialist trade fairs in the USA last January. What was your impression?

As regards Surfaces and Coverings, relations with ceramic tiles manufacturers and clients have confirmed in my eyes that we still have a leading position on the American ceramics market and that our clients really appreciate our help and our ability to develop new products and provide them with cutting-edge technology and complete product systems, supplying everything promptly: that is what makes us stand out from our competitors. Thanks to the "unique" structure we have in the USA, we have everything required to maintain our leadership on the ceramics market. As regards WOC, my visit confirmed that, despite being on the concrete technology market for a much shorter period of time, we have already achieved good results in this field, mainly because we extend our range of products every year with solutions ranging from products for repairing concrete to admixtures, waterproofing agents and materials for mechanized tunneling. There is still plenty of room to grow in these sectors, but thanks to the synergy between the Group's various subsidiaries and the sharing of technology in various different countries, I am certain we will continue to be successful.

Which are the most promising segments in the U.S. market, able to help Mapei to strengthen itself?

The product lines offering the best opportunities for growth are our "traditional" products, which have been successful for a long time now (products for ceramics, resilient materials and wood), as well as those linked with products for the building industry. These include Concrete Repair Systems (CRS), solutions for underground works, below-grade waterproofing, admixtures for concrete, resin and cementitious floorings, wall coatings, etc. The reason that these are areas of focus and expansion are due to the growth in the building and restoration of the US infrastructure and the overall strength of the US economy. Presently states including Texas, New York, Florida, Georgia, and Washington DC, are experiencing higher-than-normal rates of commercial building growth and are areas of focus for resources and support. Once the pledged governmental infrastructure investment money is released, we anticipate growth in almost every area of the U.S. and consequently in our building lines.

Mapei has strengthened its operations and boosted its production lines in the USA; are there plans for any further investment in this direction?

Our business structure in the United States allows us to compensate for serious issues affecting the US market, such as the significant increase in transport costs and difficulties in finding drivers and means of transport. Thanks to 22 manufacturing plants in various parts in North America,

we can supply our clients quickly and efficiently. Plus, our installation solutions allow us to help our US clients deal with the problem of there being a lack of specialist manpower, a serious issue in a country with a low unemployment rate. Indeed, using our systems allows faster, easier installation and requires smaller quantities of materials. This is giving us a real edge (and allowing us to keep on gaining larger market shares) over suppliers of more conventional and less competitive solutions. In 2019 we also boosted our manufacturing facilities even further by opening new plants or extending our existing structures; a strategy we plan to further reinforce to maintain our leadership on a technological level and, of course, meet the constantly growing demand for our products. As regards this latter matter, we have launched new and innovative solutions on the market for various realms of application, including materials for concrete repair and for installing ceramic tiles and natural stone.

Is it difficult to find specialized/professional workforce in the U.S. as it is the case in other countries?

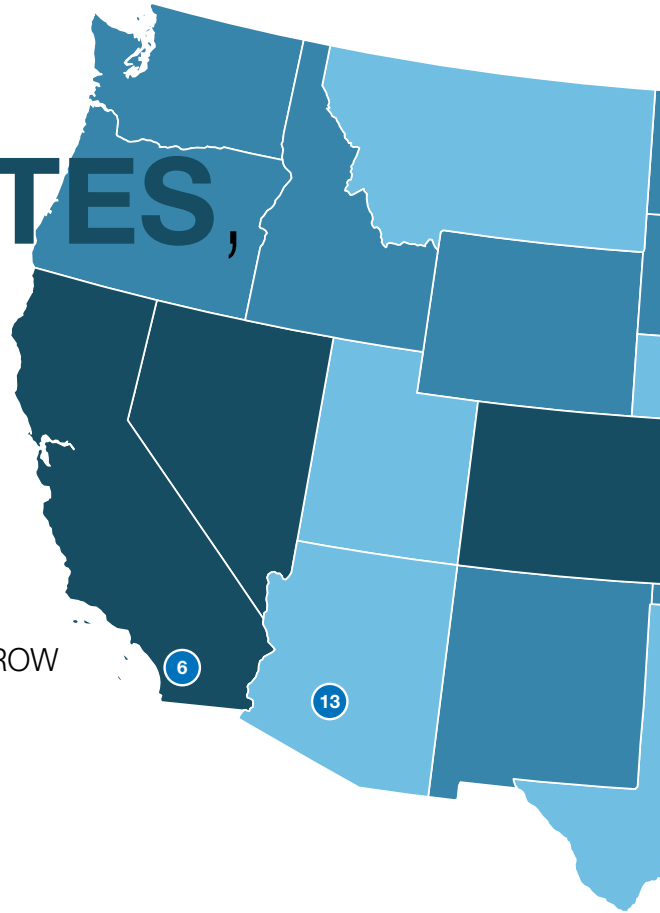
The answer to this is yes and no. Yes, it is difficult to find qualified professionals, but the reason is not because there aren't any out there in the workforce. The reason that there are not enough qualified professionals on the job market is because the US economy is so strong. According to the U.S. Labor Department, the unemployment rate is 3.6%. This means that more Americans are employed and every employment sector in the U.S. is competing to find good workers. This is not just true of our industry, but all business segments are finding similar issues in finding qualified employees. We have a plan to counter this. While we cannot fix the problem ourselves, we recognize the importance of supporting the process of creating more qualified candidates. We continue to foster growth in the industry by supporting trade organizations, working with universities, and maintaining a robust training program through the Mapei Technical Institute across the country. In this way we maximize our ability to hire qualified professionals in the future.

What are the secrets and policies for strengthening your leadership on the American market?

Mapei's "winning" formula, which we have consolidated throughout our corporate history, will not change: we are a global company that meets the demands of every single nation in which we operate with the help of local staff and management. An internationalisation strategy based around two underlying goals: to cater more effectively for local needs and reduce transport costs to a minimum. Our primary aim is to work more closely (and more quickly) with our clients and customers.

UNITED STATES, FULL STEAM AHEAD FOR MAPEI

THE AMERICAN ECONOMY (AND THE CONSTRUCTION SECTOR) WILL CONTINUE TO GROW IN 2019, MAINTAINING MAPEI'S POSITIVE TREND



A solid pace of growth marked the fourth quarter of 2018 for both the U.S. economy and Mapei Corporation. For Q1 2019, the American GDP experienced a strong 3.2% growth; however, consensus predictions for overall growth for 2019 remain at a more conservative 2.6%.¹

The Congressional Budget Office is predicting 2.4% growth for 2019 as are members of the Federal Reserve Board², while Kiplinger's predicts 2.6% growth bolstered in part by a strong second quarter.³ And while the predictions seem "safe," it is important to remember that they are still higher than they were at this point last year. There is no denying the fact that the economy continues to grow at a constant pace.

The U.S. construction industry is also expected to continue growing at a steady pace. In April, the U.S. Bureau of Labor Statistics (BLS) announced that the construction industry's unemployment rate was down to 4.7% from 6.4% in January.⁴ According to the BLS, in April, construction employment rose by 33,000, with gains in nonresidential specialty trade contractors (+22,000) as well as in heavy and civil engineering construction (+10,000). The construction sector has added an estimated 256,000 jobs from April 2018 to April 2019. Combined with the fact that total U.S. unemployment is at 3.6% after the first quarter's figures have been reported,⁵ the predictions for robust economic growth seem very realistic.

Dodge Data and Analytics predicts total U.S. construction starts for 2019 will be 808 billion US dollars, which is essentially even with the 807 billion US dollars that was estimated for 2018.⁶ Although Dodge is predicting minor retreats in commercial and utility building⁷, all other sectors of the construction economy are predicted to make gains. This is backed by other industry experts, including Associated Builders & Contractors and ConstructConnect. Mapei Corporation has the reach and products to support this increased demand.

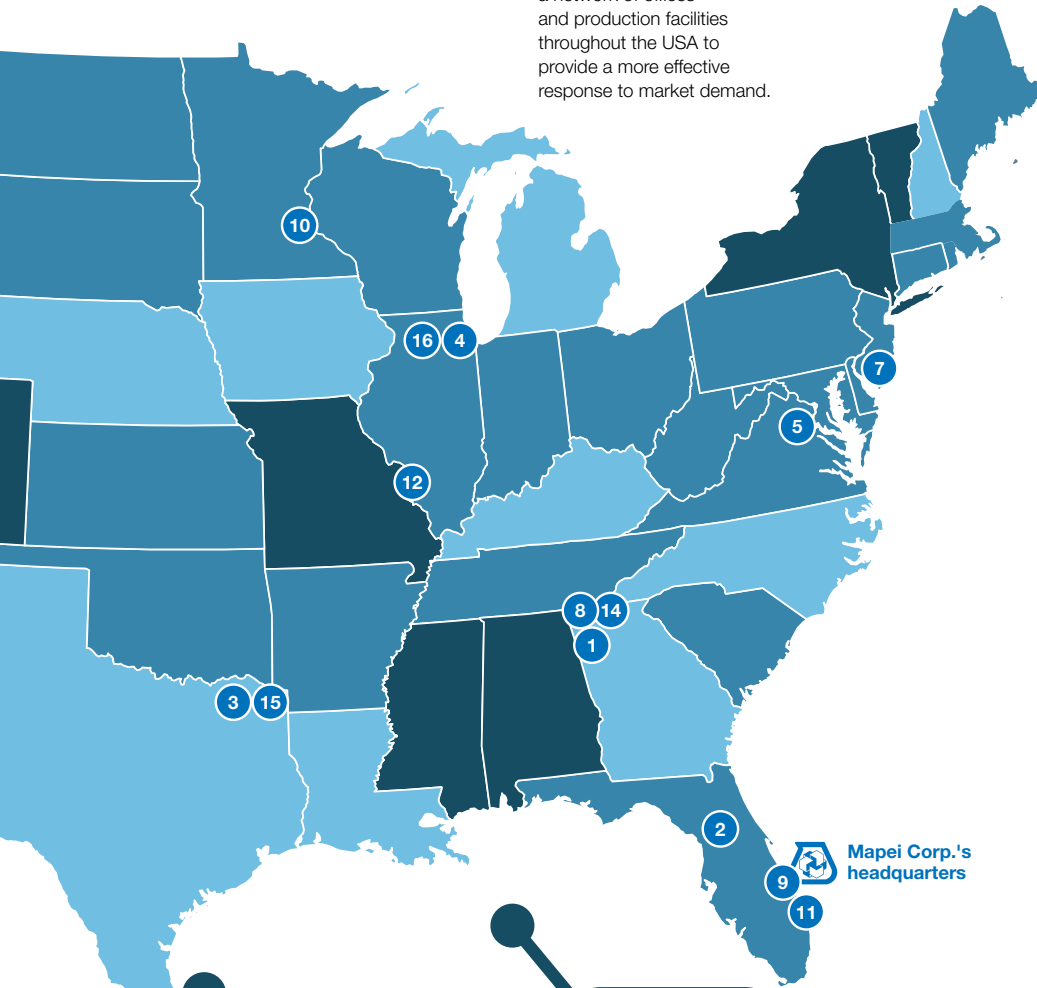
566
million dollars
Mapei Corp.'s
turnover in 2018

13 Mapei
Corp.'s
manufacturing
units in the USA
(and further
2 to become
operative in
2020)

MAPEI CORP.'S AND GRT'S FACILITIES IN THE USA

<ol style="list-style-type: none"> 1. Calhoun, Georgia 2. Wildwood, Florida 3. Garland, TX (R&D) (MAPEI/GRT) 4. West Chicago, Illinois 5. Fredericksburg, Virginia 6. San Bernardino, California 7. Swedesboro, New Jersey 8. Dalton, Georgia (R&D) 9. Deerfield Beach, Florida, HQ and R&D 	<ol style="list-style-type: none"> 10. Eagan, Minnesota (MAPEI/GRT), (R&D) 11. Fort Lauderdale, Florida 12. Madison, Illinois (MAPEI/GRT) 13. Tempe, Arizona 14. Dalton, Georgia 15. Garland, Texas (MAPEI/GRT) 16. West Chicago, Illinois (MAPEI/GRT)
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Mapei Corporation has a network of offices and production facilities throughout the USA to provide a more effective response to market demand.



7 PRODUCTION FACILITIES EXTENDED OR WITH NEW PRODUCTION LINES



1. CALHOUN (GEORGIA)



2. WILDWOOD (FLORIDA)



3. GARLAND (TEXAS)



4. WEST CHICAGO (ILLINOIS)



5. FREDERICKSBURG (VIRGINIA)



6. SAN BERNARDINO (CALIFORNIA)



7. SWEDESBORO (NEW JERSEY)

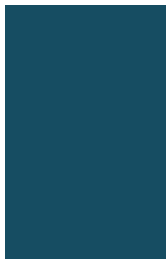
4
Research & Development Centers

20
New products launched on the market since the beginning of the year



DEERFIELD BEACH (FLORIDA)
Headquarters of Mapei Corp. in the USA

+8%
increase in Mapei Corp.'s turnover in 2018



+12%
forecast increase in Mapei Corp.'s sales for 2019



+11%
increase in sales of products for the ceramic sector in USA



STEADY GROWTH

Mapei Corporation’s growth has remained steady in the first quarter, continuing our growth from 2018. We finished 2018 with an 8% increase in overall sales revenues from the previous year. This positive sales trend is driven by organic growth in sales coupled with an increase in year-over-year (YOY) pricing. It was also helped by the fact that we saw strong performances in our Retail and Wholesale sales channels, which increased 15% and 7%, respectively, from 2017. The ceramic tile products channel grew 11% and is up 5% over budget. Moreover, Mapei Corporation recently became the sole provider of tile installation materials to one of our major North American retailers. This is a great feat and something that we have been working on for many years. It has helped to increase our retail sales numbers. We are also in first position with the majority of our distributors coast-to-coast. Additionally, the impact of the Tax Cuts and Jobs Act of 2017 resulted in 1.3 million US dollars in tax expense savings.

Mapei Corporation also expanded in terms of production capabilities. The past months have been a period of growth in which we have opened or expanded the following facilities to ensure that we remain ahead of the technology curve, as well as meeting increased production demands.

■ **Calhoun, Georgia:** currently a warehouse, this facility should open for resilient product production sometime in 2020.

■ **Garland, Texas:** a third line (powder production) will be up and running in the second half of 2019.

■ **Fredericksburg, Virginia:** This location’s 9,000-square-

meter expansion will be completed by the end of 2019.

■ **San Bernardino, California:** A busy location, this West Coast facility has recently added one new powder production line.

■ **Swedesboro, New Jersey:** This location recently opened a new cutting-edge Center of Excellence research and testing lab for Mapei Corp. and Mapei/GRT, as well as one new powder production line.

■ **West Chicago, Illinois:** This facility has added two new powder production lines and three new packaging machines in order to meet accelerated demands.

■ **Wildwood, Florida:** This new location recently opened for distribution and warehousing and is slated for production by mid-2020.

Strategically located across the United States, these new and expanded locations allow Mapei Corporation to better serve our customers in a timely manner. Further growth is planned for other locations in the near future.

We also have introduced several new products over the course of the past eight months. Our Concrete Restoration Systems (CRS) division introduced ELASTOCOLOR TEXTURE, ELASTOCOLOR PRIMER AR, PLANISEAL CR1, PLANILEVEL 360, PLANILEVEL 420, PLANILEVEL 450, PLANILEVEL 500 and PLANILEVEL 560 at the World of Concrete tradeshow. Our Tile & Stone Installation Systems and Floor Covering Installation Systems divisions introduced new products at The International Surface Event (TISE) including MAPECONTACT MRT and MAPECONTACT SRT, MAPESONIC RM, PLANISLOPE RS, POLYPLAN RSL, ULTRABOND ECO 811 and ULTRA-

➤ **AFTER AN 8% INCREASE IN 2018, MAPEI CORP. HAS FORECAST A FURTHER INCREASE IN SALES OF 12% IN 2019**

TABLE 1. This table summarises the data processed by Dodge Data & Analytics, Associated Builders & Contractors and ConstructConnect at the end of the first trimester in 2019.

US NONRESIDENTIAL CONSTRUCTIONS INVESTMENTS FORECAST FOR 2018-202			
SECTORS	2018 estimated spending-put-in-place, billion US \$	Forecast % Change 2019	Forecast % Change 2020
Nonresidential Total	436.7	3.7	0.9
Commercial Total	196.0	2.3	-1.9
Office	72.5	4.4	-0.2
Retail & Other Commercial	91.5	0.3	-2.5
Hotel	32.0	3.0	-4.4
Industrial Total	65.9	6.2	4.7
Institutional Total	174.9	4.4	2.6
Health	42.3	4.0	3,4
Education	93.8	4.6	2.8
Religious	3.0	-1.5	-0.5
Public Safety	9.3	6.1	4.6
Amusement & Recreation	26.5	4.0	0.2

EXTENDING PRODUCTION FACILITIES AND INTRODUCING NEW PRODUCTION LINES: MAPEI'S STRATEGY TO STRENGTHEN ITS PRESENCE IN THE USA

BOND ECO 977. We were awarded "Best of Technology" for our ULTRACARE CEMENT GROUT HAZE REMOVER as part of the "Best of TISE Event" awards during TISE. You can read more about our presence at WOC, Tise and Coverings trade fairs in the dedicated articles in the next few pages.

This industry recognition and continued success, including the success of award-winning products such as ULTRACARE CEMENT GROUT HAZE REMOVER, is attributed to the hard work of our various departments. Our product offerings are strong, and our technical innovations are unmatched thanks to the efforts of our Research & Development Department. The development of new products and the improvement of existing products are handled so beautifully by that skilled team.

Any technical questions and the training that accompanies these new products are flawlessly handled by our Technical Services Department. Together, R&D and Tech Services ensure that we remain on the cutting edge of the industry.

Our Mapei North American Operations Department maintains the facilities to create those cutting-edge products. As discussed, we are in the midst of expansion at multiple facilities, and that would not be possible without the guidance and strategic planning of our operations team. The Operations Department also ensures that we are in compliance with ISO standards.

We are making large strides in our Sales and Architectural Groups, who are delivering strong performances – both in terms of quality (increased sales) and quantity (growing the teams themselves). Our teams are reaching the end users, developing new relationships and continuing to foster existing ones. From the specification to the final walk-through, our Sales and Architectural teams are working hard to let our customers know that Mapei Corporation truly provides system solutions.

Our Marketing Department plays a strong role in this outreach



FISCAL REFORM

The "Tax Cuts and Jobs Act" that the President of the United States, Donald Trump, wanted to introduce to boost the (already notable) growth rate of the American economy, create jobs, and encourage businesses that had transferred their investment elsewhere to return to the United States, was officially implemented on 22nd December 2017. This is the most drastic fiscal measure in the United States for the last 30 years. It involved tax cuts of approximately 1500 billion US dollars. One of the key points of this fiscal reform is the permanent reduction of corporate income tax. As of 1st January 2018, corporate income tax was reduced to 21% compared to the figure of 35% set by the previous reform. Fiscal reform is also intended to encourage investment in the United States: it allows immediate expensing (in the year of purchase) of investment in plants and machinery purchased and brought into operation from 27th September 2017 to 31st December 2022.

as well, providing solid social engagement online and in our community. The variety of initiatives in which Mapei Corporation is involved ranges from donating to local charities and educational funds, to working with the Gary Sinise Foundation's R.I.S.E. program to build smart houses for wounded veterans.

Mapei Corporation doesn't just supply building materials, we also help build our communities. All these efforts combine to make Mapei the No. 1 desired brand in America.

This is why we are very optimistic about 2019. The American economy is stable, and Mapei Corporation is growing at a steady rate. As the new production lines begin to come online and the new products begin to be introduced to the market, we anticipate bigger growth in the coming quarters. We are positioned to drive sales and product to better reach and support our clients.

2019 has every indication of capitalizing on and improving the record growth we established in 2018. We are forecasting an incredible 12% growth for 2019.

Luigi Di Geso President and CEO, Mapei North America

1 <https://www.kiplinger.com/article/business/T019-C000-S010-gdp-growth-rate-and-forecast.html>

2 <https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20190320.htm>

3 <https://www.kiplinger.com/article/business/T019-C000-S010-gdp-growth-rate-and-forecast.html>

4 <https://www.bls.gov/iag/tgs/iag23.htm>

5 <https://www.bls.gov/news.release/pdf/empst.pdf>

6 <https://www.construction.com/news/new-construction-starts-2019-steady-with-2018-dodge-data-analytics-oct-2018>

7 <https://www.constructconnect.com/blog/industry-snapshot/a-second-month-of-construction-starts-weakness-early-in-2019/>



**NEW
RESIDENTIAL
CONSTRUCTIONS**

(May 2019)

**BUILDING PERMITS
1,294**

**HOUSING STARTS
1,269**

**HOUSING COMPLETIONS
1,213**

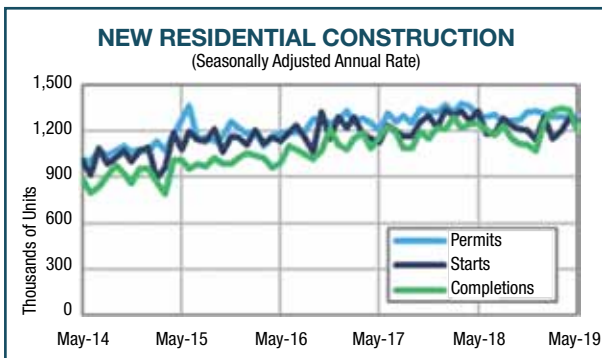
*Seasonally Adjusted Annual Rate
Source: U.S. Census Bureau, HUD,
June 18, 2019*

US residential in fits and starts while remodelling is booming

IN THE FLOORING SECTOR LVT HAS SHOWN THE BEST RESULTS

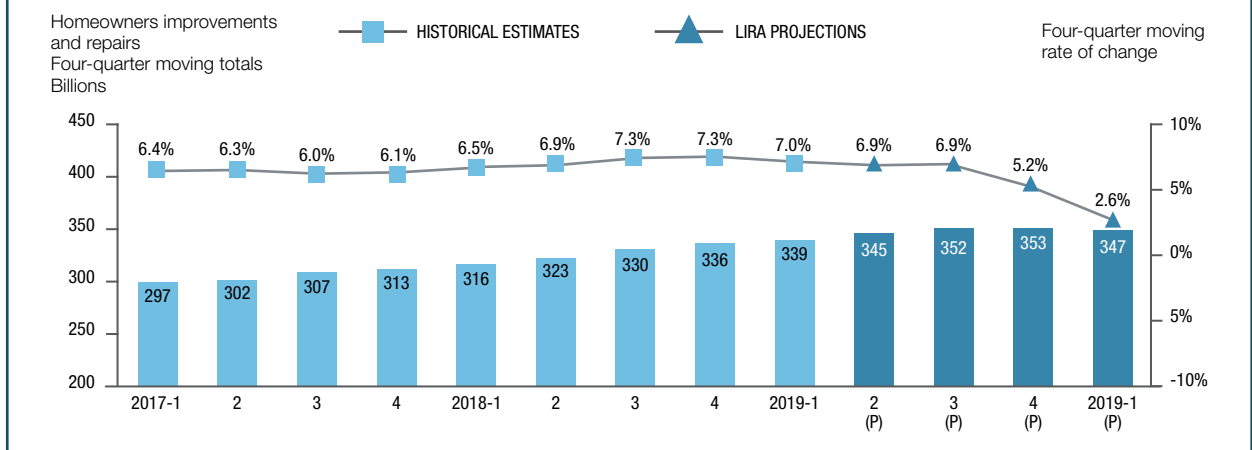
In May 2019 the number of Housing Starts in the USA grew by 0.9% compared with April (1,281,000 units), for a seasonally-adjusted annual rate of 1,269,000 residential units. 820,000 were single-family houses, which means a drop of 6.4% compared with April 2019 (876,000 units). These are the latest figures released by the U.S. Department of Commerce, which also pointed out that the total number of Housing Starts for May 2019 was 4.7% lower than May 2018 (1,332,000 units). The contents of this press release from the Dept. of Commerce is similar to those published for at least three years: the residential construction sector seems to be advancing in fits and starts without showing very much real progress. Housing Starts are crucial for the sales of ceramic tiles since over 30% of sales are related to this sector.

The trend in the residential construction sector varies from region to region. The region with the highest number of Housing Starts is the South, from Virginia to Texas, which registered 704,000 new builds; in second place is the Western region, which includes the states along the Pacific coast and the nearby areas, with 332,000 new builds. In third place was the central Midwest region, with 160,000 new builds, and in fourth place was the North-East, with 73,000 new builds.



Source: U.S. Census Bureau, HUD, June 18, 2019

LEADING INDICATOR OF REMODELLING ACTIVITY



Source: Joint Center for Housing Studies of Harvard University

NON-RESIDENTIAL CONSTRUCTION SECTOR

The non-residential construction sector in the USA is strongly influenced by public spending, which includes only a few residential constructions, compared with a high level of spending for motorways and schools. In May 2019, the total spent on constructions in the United States amounted to 1,293,872 million dollars (seasonally-adjusted annual rate), a drop of 2.3% compared with May 2018. Out of this total, the amount spent on residential constructions was 505,359 million dollars, a drop of 11.2% compared with May 2018.

The amount spent on non-residential constructions was 788,512 million dollars. Figures from the U.S. Census Bureau highlight the growth in spending for non-residential constructions from 2011 until today, following the collapse in the sector in 2008 due to the deep recession.

REMODELLING SECTOR

The residential remodelling sector in the USA depends largely on the level of sales of existing houses. In general, buyers of existing houses and apartments tend to carry out work on their new property before moving in and actually living there, which goes from just painting the walls to completely remodelling the bathroom and kitchen. In April, the level of sales for existing detached houses registered a total of 673,000 units (seasonally-adjusted annual rate). This figure represents a drop of 6.9% compared with March but an increase of 7% compared with April 2018.

It is worth pointing out, however, that remodelling work is still carried out, albeit to a lesser degree, when the level of sales of existing houses remains static. When house prices increase to a level too high for home-owners to be able to climb the property ladder and buy a larger house, they tend to remain where they are and invest in remodelling the house they are living in. According to Metrostudy's residential remodelling index, the favourable economic climate is encouraging spending on remodelling work, even though sales figures for existing houses is advancing at a moderate rate. For the next two years Metrostudy forecasts a moderate growth in remodelling of between 2% and 3% per year.

It must be pointed out also that, according to figures from the National Association of Home Builders, the shortage of

manual labour is having a negative effect on "remodellers", that is, companies that carry out remodelling work. There is a shortage of carpenters and joiners, bricklayers, electricians and floor installers. Salaries have risen and, as a result, so has the cost of projects.

OUTLOOK FOR THE FLOORING SECTOR

In the flooring sector, the segment that is growing at the highest rate is luxury vinyl flooring (LVT), which is easier to install than ceramic tiles and, between the cost of products and installation costs, has a lower price. Even though the performance properties of vinyl flooring are inferior to those for ceramic flooring, it has won a larger share of the US market mainly because of its price, the higher number of offers available than with ceramic tiling and the fact that young families have to live on a limited budget.

THE EFFECT OF IMPORT DUTIES ON CHINESE GOODS

The application of a 10% levy on a whole range of products imported from China halved the amount of ceramic tiles imported from this country in April. When the levy was increased to 25% in June, it became uneconomical to import from China because the levy has to be paid before releasing the goods from customs, which represents a considerable financial burden for importers. In a situation such as this, only products that are guaranteed to sell can be imported. What is more, ceramic flooring from China will probably also be subject to compensatory and anti-dumping charges because the Department of Commerce has ascertained that American manufacturers have been damaged by Chinese imports.

In the ceramic tiles sector, it is unlikely that the effect of ceasing to import from China will drastically increase prices, in that there is such a large production capacity in the United States and in other countries that export to the USA.

It is quite likely, however, that in other sectors there will be an increase in prices and, as a result, a decline in construction activities.

Donato Grosser. D. Grosser and Associates Ltd., New York



LEFT. The Mapei Corp.'s booth at WOC 2019.

ABOVE. At WOC, speed painter Tim Decker drew large crowds while showing off the ELASTOCOLOR coatings line.

TOP OF THE PAGE. Host Kevin O'Connor and Mapei Corp.'s Rankin Jays discussed the features and benefits of the ELASTOCOLOR coatings.

WORLD OF CONCRETE®

JANUARY 22 – 25, 2019
LAS VEGAS CONVENTION
CENTER, LAS VEGAS

More than 60,500 industry professionals from around the world attended the World of Concrete (WOC), which was held at the Las Vegas Convention Center, from January 22 to 25. The event featured 1,500 companies — both domestic and international — exhibiting across more than 72,000 m² of space.

Filled with innovative products centered around a demonstration stage, Mapei Corp.'s (the US subsidiary of the Group) two-story booth dominated the convention floor. This year, Mapei Corp.'s prod-

uct demonstrations were emceed by Kevin O'Connor, the host of the award-winning home improvement television show, "This Old House." O'Connor interacted with the Mapei team and with the gathered crowd, asking questions about the products in an engaging, thoughtful manner that drew people to the booth. Products demonstrated included solutions for the concrete industry manufactured and distributed in the USA by Mapei Corp such as MAPECEM QUICKPATCH, PLANICRETE LA, CONCRETE RENEW, PLANISEAL CR1, and MAPEFINISH WET LOOK, as well as products available on the international market MAPEFER 1K mortar for protecting reinforcement rods, and MAPESHIELD I galvanic anodes.

In addition to demonstrations for products from the concrete repair and structural strengthening lines by the WOC Demo Team, led by Andrew Fulkerson, demonstrations for the ELASTOCOLOR coatings line also featured noted speed painter Tim Decker. He drew huge crowds, as did O'Connor and the rest of the live demos. Mapei Corp. also participated in two charity events at WOC, donating product to be auctioned. The charities supported are ones with which Mapei Corp. routinely interact throughout the year: Concrete Cares (a charity that supports research into curing childhood cancers) and CIM (Concrete Industry Management program to enroll students in concrete industry programs/degrees).

ICRI 2019: THE CONVENTION FOR CONCRETE REPAIR

The Mapei Corp.'s contingent is always present at any International Concrete Repair Institute (ICRI) event and the Spring 2019 Convention, held from April 8th to 10th in Jacksonville (Florida, USA) was no exception. Things kicked off with a "Women in Concrete" off-site networking mixer on Monday, April 8th, of which, Mapei was one of the sponsors. Monica Rourke, Mapei Corp.'s UTT Country Manager and the first female President of the ICRI Board (2008), championed this event.

The Mapei demo team, led by Kevin Smith, Director of Concrete Repair System line for Mapei Corp., networked the show, manning

the Mapei booth and attending various committee meetings helping to write standards, as well as participating in technical presentations. In the booth, the team highlighted some product innovations distributed by Mapei Corp on the US market such as PLANISEAL CR1 waterproofing compound, which was in keeping with the convention's theme of "Waterproofing - Making It Dry and Appealing To The Eye." Also speaking to the aesthetic theme was Rankin Jays, Mapei Corp.'s Business Development Leader for Coatings with a presentation entitled "Not All Paints Are Created Equal: Do You Still Get What You Asked For?" which drew a full room and plenty of follow-up questions.

THE INTERNATIONAL SURFACE EVENT

JANUARY 23 – 25, 2019
THE MANDALAY BAY
CONVENTION CENTER,
LAS VEGAS



David Mowery, Mapei Corp. Business Manager for ULTRACARE, was awarded the “Best in Technology” during TISE 2019.

The International Surface Event (TISE) drew more than 25,000 industry professionals from over 100 countries to the Mandalay Bay Convention Center on January 23 to 25. Comprised of three trade shows: SURFACES, StonExpo/Marmomac, and TileExpo, TISE featured more than 600 manufacturers and suppliers of tile, stone, marble, resilient, laminate, hardwood, carpet, and rugs. It was a busy and successful show for Mapei Corp, the US subsidiary of the Group. In addition to hosting a press breakfast, Mapei Corp. also participated in an educational presentation about grouts and mortars. Experts from the company presented “Powerful Powders and Modified Muds,” to an attentive audience on the 24th. The Mapei Demo Team, led by Sam Biondo, drew large crowds to the booth each day. Products

demonstrated on the stage included solutions for substrate preparations, thixotropic mortars, adhesives and grouts for ceramic tiles, waterproofing and soundproofing materials specially developed for the US market such as PLANISLOPE RS, MAPESONIC RM, PLANISEAL PMB AND PLANISEAL MRS, POLYPLAN RSL, ULTRACOLOR PLUS FA, MAPEI FLEXCOLOR 3D, MAPEI FLEXCOLOR CQ and the ULTRACARE line, as well as products available on the international market such as the MAPECONTACT tape, and the MAPEGUARD WP systems. Mapei’s ULTRACARE CEMENT GROUT HAZE REMOVER was awarded “Best in Technology” as part of the “Best of TISE Event” awards which recognize the innovation and excellence of exhibiting companies. The awards are sponsored by StoneWorld, Tile Magazine, Floor Covering News and Contemporary Stone & Tile Design and given to companies whose products are deemed to be “best” in their class by a panel of judges appointed by the sponsoring publications. David Mowery, Mapei Corp. Tile and Stone Installation Systems’ Busi-

ness Manager for color products and ULTRACARE, claimed “Mapei’s ULTRACARE CEMENT GROUT HAZE REMOVER is part of our ‘problem solver’ category. Formation of haze film on tile surface after grouting is common. Haze removal and restoration of the tile surface to its natural beauty is successfully completed with this performance product.” Both he and Nick Valenti, the Mapei Corp.’s Business Development Manager for ULTRACARE Systems, were in the booth to demonstrate the product, as well as the rest of the line.

On the evening of January 23, 500 of Mapei Corp.’s most valued clients — from both shows — were thanked at a VIP event held on January 23rd at the LIGHT Nightclub at Mandalay Bay. This evening of food, drink and entertainment was THE party to attend that night and the topic of discussion the next day.



LEFT. The Mapei Corp.’s booth at TISE 2019 featured a big demo stage underneath a large video screen.

BELOW. Sam Biondo and the Mapei demo team drew large crowds with their lively product demonstrations on the Mapei stage.





Coverings '19

THE GLOBAL TILE & STONE EXPERIENCE

ORLANDO (FLORIDA, USA), APRIL 9TH – 12TH

Coverings, the largest international tile & stone exhibition in North America, opened its doors on April 9th to an enthusiastic crowd at the Orange County Convention Center in Orlando (Florida, USA). To kick off the start of the show's 30th year, representatives from Ceramics of Italy, the Tile Council of North America, Tile of Spain, the Ceramic Tile Distributors Association, and the National Tile Contractors Association gathered for an official ribbon cutting ceremony. Coverings showcased the latest in tile and stone from over 1,100 exhibitors and more than 40 countries. This year's edition boasted 26,000 at-

tendees from 90 countries, over 42,000 m² exhibition space and 50 conference sessions.

AN UNMISTAKABLE PRESENCE...

Mapei Corp.'s (the Group's US subsidiary) exhibited successfully at Coverings 2019 on April 9th – 12th. Even before the show opened, Mapei was a dominant presence on the Coverings show floor. As booths were being constructed, it was clear that most were being constructed with Mapei products.

Mapei continued to assert its unmistakable presence once the show opened. The Mapei Corp.'s demonstration team



ABOVE. The Mapei Corp.'s demonstration team and National Technical Presenter Sam Biondo kept crowds informed and entertained.



LEFT. The Mapei Corp.'s booth at Coverings 2019 was a dominant presence on the Coverings show floor.

and National Technical Presenter Sam Biondo kept crowds informed and entertained, both on the booth's "Mapei Live!" stage and on the Tile Council of North America (TCNA) demo stage. Demos covered such topics as "From Fast Surface Preparation to 'H' Rated Mortars: Mapei Corp.'s System Solutions for Large/Heavy Tiles," "Sloping, Waterproofing, Reducing Sound and Installing Large/Heavy Tiles with Mapei," and "Cement Tiles and Other Scary Situations: Mapei Corp.'s Premium System Solutions to Grouting."

In addition, a "Super Demo" combined a plethora of products and installations. And Nick Valenti, Business Manager for the Mapei Corp.'s ULTRACARE line of products, demonstrated "Mapei's Cement Tile Grouting Solutions, Care and Maintenance." Whether the demos were on the MAPEI Live! stage or on the TCNA stage in the middle of the show floor, they were projected onto a huge video screen. Congregating at the Mapei booth to watch, crowds spilled out into the aisles.

The Mapei booth proved to be a popular stop on the Contractor Tour. Wearing whisper headsets, Jim Whitfield, Mapei Corp.'s Director of Technical Services, spoke to two groups of contractors, explaining the latest product innovations, how they are applied in the field and how they make jobs more efficient.

As Coverings ended and the booths were dismantled, it was easy to see which ones had been constructed using Mapei adhesives and grouts. Some tiles came off of the walls easily; others did not, but rather shattered into pieces

when the mortar did not release them easily from the walls. Even in a temporary setting, Mapei quality proved to be unmistakable.

...WELL BEYOND THE BOOTH

Mapei Corp.'s also informed and entertained with educational presentations. Jim Whitfield co-presented with Crossville Tile's Noah Chitty on "Gauged Porcelain Tile and the TCNA Handbook." Brian Pistulka, Mapei Corp.'s Product Line Manager for Tile & Stone Installation Systems, presented "QUICKFIRE @ CONNECT: Faster, Better, Cheaper - Pick 2."

Coverings' "Clean the World" project would not be what it is without the involvement of Mapei Corp.'s team. Members of the marketing and demo teams joined with FloridaTile, Tiles of

Italy, NTCA and others to fill 1,600 hygiene kits that were then donated to The Orlando Fisher House. The Fisher House provides free housing for families and caregivers of veterans and active-duty military receiving inpatient treatment at Orlando's VA hospital. The hygiene kits provided families with soap, razors, lotions - the daily amenities that bring a small measure of comfort during an otherwise difficult time. "This is our third year of participating in the Clean the World initiative," said Steven Day, Mapei Corp.'s Director of Operational Marketing. "We were at the very beginning of this program and are excited to see it grow."

The next edition of Coverings will be held in New Orleans (Louisiana, USA) on 20th- 23rd April 2020.

Mapei Corp. took part in the "Clean the World" project during the show by helping to fill 1,600 hygiene kits that were then donated to The Orlando Fisher House.



THE WINNERS OF THE “2019 CERAMICS OF ITALY TILE COMPETITION”

The “Ceramics of Italy Tile Competition” is an initiative of Confindustria Ceramica (Association of Italian manufacturers of ceramic tiles and refractory materials) to promote excellence in the use of Italian ceramic tiles in buildings designed in North America. This page contains a list of the 2019 awarded projects.

RESIDENTIAL ARCHITECTURE

1. Winner

Project: 132-136 West Houston St., New York (NY, USA)

Design: SWA Architecture

Photos: Mirco Pasqualini

2. Winner

Project: Valley Vista, Encino (California, USA)

Design: DI Group, INC.

3. Honourable mention

Project: Page House, Berkeley (California, USA)

Design: Ajay Manthripragada

Photos: Naho Kubota



1



4



5

COMMERCIAL ARCHITECTURE

4. Winner

Project: Mercedes-Benz Stadium, Atlanta (Georgia, USA)

Design: tvsdesign

Photos: Brian Gassel

N.B. This project featured Mapei products distributed by Mapei Corp. such as Planiseal MVR, Primer T, Novoplan 710 SL, Mapecem Quickpatch, Planipatch Plus, Planiprep SC, Eco 575 Cove Base, Eco 711, Ultrabond Eco 420, Eco 810 Pressure Sensitive.

5. Honourable mention

Project: Walper Hotel, Kitchener (Canada)

Design: Dubbeldam Architecture + Design; Jill Greaves Design, Dialogue 38

Photos: Gillian Jackson of Barré Studio, Langen Studios, Kerun Ip

N.B. This project featured Mapei products distributed by Mapei Corp. such as Primer L, Ultraplan I Plus, Ultraflex LFT, Type 1, Ultracolor Plus FA, Keracolor U



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INSTITUTIONAL ARCHITECTURE

6. Winner

Project: Central Public Library, Calgary (Canada)

Design: Snøhetta

This project included the use of ECO 810, distributed on the US market by Mapei Corp.



7. Honourable mention

Project: Wake Forest University - Reynolds Gymnasium, Winston-Salem (North Carolina, USA)

Design: RDG Planning & Design

Photos: Kun Zhang; Iris22 Productions

N.B. This project featured Mapei products distributed by Mapei Corp. such as Ultraflex LFT, MAPEI flexcolor CQ, Keracolor S, Mapelastic CI, Mapelastic AquaDefense

“STUDENT” ARCHITECTURE

8. Winner

Project: The Sweet Pastel Caffè, Vancouver (Canada)

Design: Aylin Askarihosseini, Visual College of Art and Design (VCAD)



NORTH AMERICAN DISTRIBUTOR AWARD

Each year Confindustria Ceramica honors an exemplary North American tile distributor with the prestigious North American Distributor Award. This year Ciot was the recipient of the award, which celebrates the close connection between Italian tile manufacturers and their valued North American partners. The Montreal-based distributor was founded in 1950 by Giovanni Battista Ciot. By the 1960s, Ciot began importing Italian stone and ceramics, leading the charge in the North American distribution of Italian tile. A third generation, family-run business, Ciot now has showrooms in several Canadian and US cities (Vaughan, Toronto, Halifax, Mississauga, Quebec City, Detroit, Brossard) and employs 580 people throughout North America.

From left on. Luciano Galassini (Vice Managing Director of Confindustria Ceramica), Emilio Mussini (Confindustria Ceramica's Vice Chairman and Head of the Promotional Activities and Trade Fairs Commission), Kristina Panzera (Vice President of Marketing and Buying at Ciot), Giovanni Savorani (Chairman of Confindustria Ceramica) at the 2019 North American Distribution Award ceremony.

Houston, Texas (USA) MAPESOIL TECHNOLOGY ARRIVES IN THE UNITED STATES

SUCCESSFULLY USED
TO UPGRADE THE SUB-BASE
OF THE DRIVING RANGE
AT TOPGOLF KATY



Mapesoil[®] System

FLOODED BUNKERS ARE
**WATER UNDER
THE BRIDGE**

Contrary to popular belief, golf is one of the most widely played and followed sports in the world. We just need to think about the Ryder Cup, one of the most important tournaments played every two years between teams made up of the best players from the United States and Europe, which is the third most followed televised event in the world after the Olympics and the FIFA World Cup. Recently the R&A, or the Royal & Ancient, the ruling authority on the game of golf

around the world (apart from the United States and Mexico), in cooperation with 110 National Federations, published the result of a study that had been carried out on the spread of the game of golf and new golf courses around the world; at the beginning of 2017 there were 33,161 golf courses distributed throughout 208 of the 245 countries in the world (around 85% of the countries). Even though it is a very popular sport it is mainly concentrated in certain areas, with 74% of all golf clubs located in just 10% of countries: Canada, United States, Japan, England, Australia, Germany,



Topgolf Katy, Houston.

France, Scotland, Sweden and South Africa. This figure then rises to 89% if we consider the top 20% of countries, with the majority of courses located in the western hemisphere. The United States alone accounts for 45% of the world's total, with Europe in second place with 22%, followed by Asia (14%) and Oceania (6%).

Even though this sport has been traditionally associated with private clubs, where play is essentially restricted to members only, the trend now spreading around the world is for public courses: Without being a member of a club you



Topgolf Katy: the side overlooking the driving range.

can use the course through offers such as “pay and play”.

Another development is connected to the fact that nowadays golf is not only a sport or hobby, it is also, above all, a way of promoting and attracting tourism. The United States in particular took advantage of the boom in the number of new golf courses during the 1990's and, in an attempt to hold on to their members and bring a fresh new look to the game, a number of clubs started to remodel their structures by introducing activities that required less playing time but increased the level of gratification, making it possible to achieve results more quickly on the course.

This led to driving ranges being extended, par-3 courses with 9 holes or less were built, informal courses for putting practice were introduced, 18-hole courses with 3-hole and 6-hole circuits were built and practice areas to improve your short game were introduced.

Then, at the beginning of the 2000's, while practicing on the driving range to improve their swing, the Jolliffe brothers from England came up with a genial idea: to improve the playing experience even more by including other forms of entertainment. This idea took form by uniting the presence of a driving range for golfers with other forms of amusement and entertainment: which is how TEG, or Topgolf Entertainment Group, was founded.

Topgolf is now a global sports entertainments company with headquarters in Dallas and other branches in North America, Australia, UAE and the United Kingdom, where it was founded. Since opening its first branch in the United States in 2005, Topgolf has grown and now has 52 branches in the USA, 4 in the United Kingdom, 1 in Australia and 1 under construction in the United Arab Emirates. Topgolf has 15,000 employees, an estimated 13 million visitors each year, and an average turnover of 30 million dollars for each location.

Every Topgolf branch is generally built on three levels, with one side overlooking a synthetic grass driving range (Photo 1) averaging around 20,000 m² (the equivalent of almost three 11-a-side football pitches). The driving range has more than 300 individual teeing mats that can be rented by the hour and, behind the driving range, there are restaurants, game rooms, meeting rooms, fitness rooms and convention suites. Bear in mind that, in 2017, each branch had an average of 35,000 visitors every day and only 8% of the visitors were there to practice their golf swing!

MAPESOIL 100 IN HOUSTON

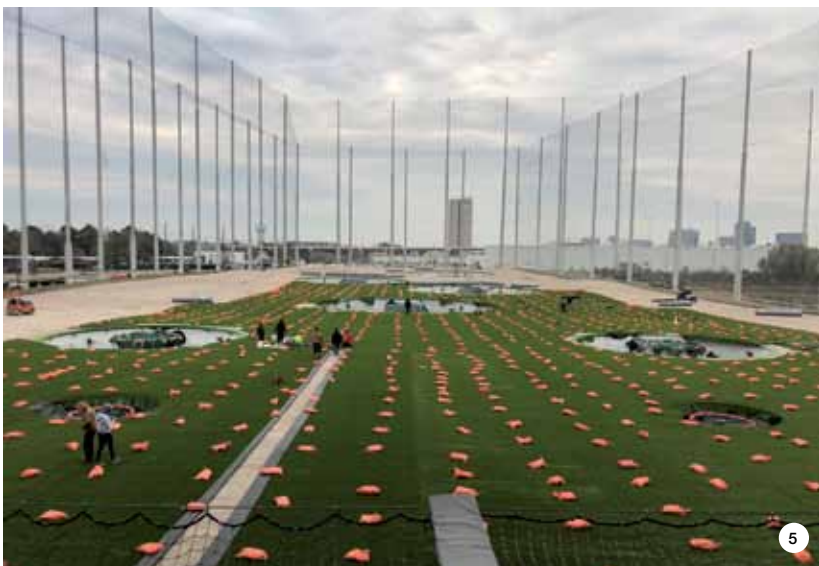
In Texas alone, Topgolf has 12 facilities including Topgolf Katy in Houston: for this location (Photo 1) upgrading works were scheduled for January, the time of year with the lowest turnover. The struc-



Preparation of the area to be treated with MAPESOIL 100.



Stabilisation of the practice area with MAPESOIL 100 (notice the height of the fences).



Bonding the artificial grass with ULTRABOND TURF PU 1K high performance polyurethane adhesive.



IN THE SPOTLIGHT

MAPESOIL 100

It is a hydraulic, high-performance, fibre-reinforced powdered stabilising agent. It is used for stabilising sub-bases for synthetic grass football pitches; for cold-recycling old sub-bases from existing sports surfaces made from bitumen conglomerate; for creating sub-bases for playing surfaces by recycling old, worn out synthetic playing surfaces; for stabilising existing clay courts and converting them into artificial grass pitches, etc.. Sub-bases constructed using MAPESOIL 100 are particularly suitable for installing the latest generation of synthetic grass (such as "FIFA PRO"), as well as for installing top level playing surfaces for other disciplines.



6

Teeing mats with golf balls with GPS tracking.

ture was temporarily closed so that the practice area, the teeing areas and some of the indoor areas could be upgraded. After severe flooding damage caused by a hurricane, Topgolf chose MAPE-SOIL technology to upgrade the sub-base of the synthetic grass driving range (Photos 3 and 4).

Even though this area is used by very few vehicles or people, there is a lot of technology and equipment in the sub-base that is used in combination with Toptracer, special software that collects the trajectory, speed and position of the balls after they have been hit.

There is also a network of small tunnels in the sub-base with an automated system to recover the more than 10,000 golf balls used in the driving range.

In order for the Toptracer programme to

work correctly the sub-base for the synthetic grass must be volumetrically stable, it must remain durable over the years and, more importantly, it must keep its initial characteristics, as the sensors and software for the Toptracer programme make reference to the surface of the driving range. By treating the existing soil with MAPESOIL 100, the sub-base was fully functional extremely quickly (in just 3 days!), with no need for disposal, ready for installation of the new synthetic grass with ULTRABOND TURF PU 1K high-performance polyurethane adhesive (Photo 5) and the reopening of the structure.

Elisa Portigliatti, Corporate Product Manager Sport Line, Mapei Group.

TECHNICAL DATA

Topgolf Katy, Houston (Texas, USA)

Year of the intervention: 2018

Intervention by Mapei: supplying products for upgrading the sub-base of the driving range and installing artificial grass

Client: Topgolf Entertainment Group
Mapei coordinator: Elisa Portigliatti and Alberto Cosmelli, Mapei SpA (Italy); Anthony Graham and Bruno Boulanger, Mapei Corp. (USA)

MAPEI PRODUCTS

Mapesoil 100, Ultrabond Turf PU 1K

For further information see www.mapei.com and www.mapei.us

A FEW EXAMPLES OF
PROJECTS CARRIED OUT
IN THE USA WITH MAPEI
PRODUCTS AND SYSTEMS



The Wanamaker Building PHILADELPHIA, PENNSYLVANIA

Commissioned by John Wanamaker, who wanted to turn it into the first department store in the United States, the Wanamaker Building, which is now used for office space, was nominated as a National Historic Landmark in 1978. The 12-storey building was inaugurated in 1912. The ninth floor features "The Atrium," a large space adjacent to the Crystal Tea Room, once a popular meeting place for members of high society. Both spaces are now popular for corporate functions.

The building underwent a complete refurbishment. In order to make the substrates perfectly flat before installing the flooring, the surface was treated with PRIMER T* before applying a layer of NOVOPLAN 2 PLUS* self-levelling mortar. An anti-fracture membrane was also installed on the surface, using MAPELASTIC AQUADEFENSE. The ceramic tiles were then installed with ULTRAFLEX LFT*, the joints were grouted with ULTRACOLOR PLUS FA* and the expansion joints were sealed with MAPESIL T*.

TECHNICAL DATA

Design: Daniel H. Burnham
Year of construction: 1812
Year of the intervention: 2019
Design: Tantillo Architecture
Client: The Wanamaker Building
Main contractor: The Sullivan Company

Installation company:

Holzhauser Tile
Mapei distributor: American Olean
Mapei coordinators: Todd DeKorte and Curtis Yocum, Mapei Corp. (USA)

Mapesil T*, Ultraflex LFT*, Ultracolor Plus FA*

* These products are manufactured and distributed on the US market by Mapei Corp. (USA).

MAPEI PRODUCTS

Mapelastich Aquadefense, Novoplan 2 Plus*, Primer T*,

For further information on products see www.mapei.com and www.mapei.us



The Plunge Pool SAN DIEGO, CALIFORNIA

One of the most well-known attractions at The Mission Beach Amusement Park in San Diego is The Plunge Pool. The park was opened in 1925 and then closed down in 1976 before being bought by new owners who decided to reopen it to the general public.

Mapei technicians recommended restoring the surface of the pool with a blend of sand and cement mixed with PLANICRETE AC* latex. After applying MAPELASTIC 315* waterproofing membrane, the pool was covered with mosaic tiles

bonded with GRANIRAPID adhesive while joints were grouted with ULTRACOLOR PLUS FA. All the damaged areas of the pool were reintegrated with PLANITOP 330 FAST mortar and the joints were sealed with MAPESIL T* while the showers, bathrooms and the edges of the swimming pool were waterproofed with MAPELASTIC AQUADEFENSE.

The small and medium size ceramic tiles were bonded with ULTRAFLEX LFT*, while the large format tiles were bonded with MAPEI ULTRALITE S2*.



TECHNICAL DATA

Year of construction:
1925

Period of the intervention: 2018-2019

Client: Pacifica Enterprises LLC

Works director: Al Rea

Main contractor: Lusardi Construction

Installation company:

Christian Brothers Flooring

Mapei distributor:
Marazzi Tile / Daltile

Mapei coordinator:
Dennis Sandell, Mapei Corp. (USA)

MAPEI PRODUCTS

Granirapid, Mapesil T*, Planicrete AC*, Planitop 330 Fast, Ultraflex LFT*,

Ultracolor Plus FA*, Mapei Ultralite S2*, Mapelast 315*, Mapelast AquaDefense

*These products are distributed on the US market by Mapei Corp. (USA).

For further information on products see www.mapei.com and www.mapei.us



The Ritz Carlton South Beach MIAMI, FLORIDA

Situated in the Art Deco quarter of Miami Beach, The Ritz Carlton sits directly on the beach. While it is part of the hotel's attraction, this location has provoked deterioration of the building's external surfaces, not only because of the inevitable passage of time, but also due to the effects of the salty sea air. The owners of the hotel were forced to intervene to ensure that the hotel's façade remained waterproof and protected, while conserving its original architectural features and very particular pastel shades. Mapei Technical Services proposed us-

ing PLANITOP 200 skimming mortar and the ELASTOCOLOR coating system. The system included the application of a coat of ELASTOCOLOR PRIMER AR* and a coat of ELASTOCOLOR COAT FINE* acrylic coating to decorate and protect surfaces. The application of this product system ensured that a protective layer was created that not only perfectly matches the historic color of the famous building, but also is impermeable to water, and provides excellent resistance to aging and the harsh atmospheric conditions to which the hotel is exposed.

TECHNICAL DATA

Design: Morris Lapidus

Year of construction: 1953

Period of the intervention: 2018-2019

Design: IBA Consultants

Client: The Ritz Carlton

Main contractor:

Contracting Specialists Inc.

Mapei coordinators: Carlos Hernandez and Rankin Jays, Mapei Corp. (USA)

MAPEI PRODUCTS

Planitop 200, Mapeflex EMC 1*, Elastocolor Primer AR*, Elastocolor Coat Fine*, Mapecem Quickpatch*, Mapelastic Smart,

Mapeflex P1*, and Elastocolor Coat*

+cts are manufactured and distributed on the US market by Mapei Corp.

For further information on products see www.mapei.com and www.mapei.us



Kartrite Resort & Indoor Waterpark MONTICELLO, NEW YORK STATE

The Kartrite Resort & Indoor Waterpark is situated in the Catskill Mountains and has 324 rooms, restaurants, shops, spa facilities and one of the largest indoor waterparks in the world (surface area 7,500 m²).

ECO PRIM GRIP adhesion promoter was applied on the concrete substrates (an area of around 40,000 m²) followed by a layer of NOVOPLAN 2 PLUS* self-levelling, polymer-modified cementitious skimming compound.

Waterproofing in the resort's interior floors and shower walls and at the wa-

terpark (around 40,000 m² total) was accomplished by applying MAPELASTIC AQUADEFENSE ultraquick drying, flexible liquid membrane.

To install the ceramic tiles and stone slabs (around 9,000 m² of surfaces), ULTRAFLEX LFT* was used for the floors while ULTRAFLEX 2* was used for the walls. Two different products were also used to grout the joints: KERAPOXY CQ for the stone slabs and ULTRACOLOR PLUS FA* for the ceramic tiles. MAPESIL T* silicone sealant was recommended to seal the expansion joints.



TECHNICAL DATA

Period of construction:

2018-2019

Period of intervention:

2018-2019

Design:

Aquatic Development Group (ADG) and ADCI Professional Corporation Architecture

Client: EPR Properties

(Owner) and Adelaar HWP (Developer)

Works director: Andrew Schoch

Main contractor: Suffolk Construction Company

Installation company: BK Tile & Stone Inc.

Mapei distributors: Protile Distributors and Daltile Albany

Mapei coordinators: Gary Hanssard and Darin Shocker, Mapei Corp. (USA)

MAPEI PRODUCTS

Novoplan 2 Plus*, Mapelastic AquaDefense, Kerapoxy CQ, Mapesil T*, Ultracolor Plus FA*, Ultraflex LFT*, Ultraflex 2*, Eco Prim Grip

*These products are manufactured and distributed on the US market by Mapei Corp

For further information on products see www.mapei.com and www.mapei.us

Investment and training for a booming economy

WITH ITS NEW PRODUCTION LINE FOR ADMIXTURES AND A TARGETED TRAINING AND COMMUNICATIONS PLAN, MAPEI KFT IS MAKING THE MOST OF OPPORTUNITIES ON THE HUNGARIAN MARKET



Once again Mapei Kft's annual press conference turned out to be an ideal opportunity to inform the press about the "head-spinning" figures the Group's Hungarian subsidiary can boast as proof of its success on the local building market. On 20th March, Veronica Squinzi (the Mapei Group's Global Development Director), Marco Squinzi (the Group's Research & Development Director) and Bela Markovich (General Manager of Mapei Kft.), met with journalists to review the targets achieved and forthcoming projects for the Hungarian market. Once again in 2018, as in the previous few years, the subsidiary has grown considerably, exceeding its sales figures for 2017 by 30% with income of over 51.5 million Euros and a manufacturing output of over 63,000 tons of solid products and over 1,600 tons of liquid admixtures. How did Mapei Kft. achieve these results? Firstly, we must take into account how well the Hungarian economy has been performing (its GDP rose by 4.9% in 2018), the 22.3% growth in the local building industry by the end of 2018 compared to 2017, and the investments in the construction sector of approximately 10.4 billion Euros. But that is not the whole story. Mapei has been operating for a long time in Hungary and has



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➤ **WE ARE ITALIANS IN ITALY AND HUNGARIANS IN HUNGARY. THIS MEANS WE HAVE A BETTER UNDERSTANDING OF THE COUNTRY AND LOCAL DEMANDS”, VERONICA SQUINZI, MAPEI GROUP’S GLOBAL DEVELOPMENT DIRECTOR**

PHOTO 1. On the 20th of March this year, Mapei Kft invited journalists from the sector to Sós-kút for the annual press conference, which included a presentation of the results for 2018 and the company’s plans for the future.

PHOTOS 2, 3, 4 and 5. A guided tour of the recently extended production facility in Sós-kút was held for local authorities and the company’s clients and business partners.

a solid position on its market. Mapei Kft., the Group’s Hungarian subsidiary, was originally founded on 1st September 1991 for manufacturing and marketing building material in Hungary. Thanks to its manufacturing plant in Sós-kút in the north-east of the country, Mapei Kft. has grown over the years, achieving notable success in all realms: the number of staff has risen from 4 to 176; the offices in Budaörs are being extended; the plant has been extended several times and its output has gradually grown; the subsidiary has received prestigious awards such as “Best Workplace” in 2006 and 2015 for the quality of its working environment, several Construma Product Awards in 2015 for a range of innovative products, the “Business Ethics Prize” in 2016, and it was also commended for being a successful business by the Hungary Ministry of Economic in 2017. This year it also won the “Nicest Booth Award” for its stand at the Construma show, Hungary’s flagship event for the building industry.

Over the last year Mapei Kft. has not rested on its laurels: more specifically, it has maintained its traditional focus on training getting over 7000 people involved in its training programs for professionals working in the industry, 2000 people took part in webinars, and a community of approximately 1300 experts in the building industry was created. Considerable attention has focused on installers organising specific training events, an information channel based around newsletters, TV campaigns, a company magazine called “Mapei Krónika”, and various other projects.

Mapei Kft. continues to be committed to young people, too: for some time now, the subsidiary has been promoting jobs in the building industry in primary schools to attract more students to the trade and counteract a lack of specialist manpower in the building industry. In 2015 it launched the “Master of Masters” prize to reward the work of professionals involved in the Hungarian building industry. After publishing its own



**MAPEI KFT.:
FACTS &
FIGURES**

+51.5
MILLION EUROS:
INCOME IN 2018

+30%
GROWTH
IN 2017/2018

176
STAFF

63,700 TONS:
**YEARLY OUTPUT OF
SOLID PRODUCTS**
(AS WELL AS 1,600
TONS OF LIQUID
ADDITIVES)

7,400
PEOPLE
TAKING PART
IN TRAINING EVENTS
IN 2018

400
STUDENTS
FROM SURROUNDING
SCHOOLS INVOLVED
IN TRAINING
PROGRAMMES IN 2018

little book about building trades in 2017 and handing it out to primary/middle school children in areas around Sós-kút, the subsidiary continued promoting jobs in the building trade (and their great appeal) getting about 700 students involved. It also sponsored PSZC Reguly Antal installation school, supplying materials, equipment and work gear.

So, it is hardly surprising that once again in 2018 Mapei Kft. has contributed to the construction and renovation of such prestigious building as Budai Vigadó Theatre in Budapest, an ultramodern residential complex in Siófok in central-western Hungary, and the keeper's lodge at Budapest Castle, now used as a casino.

STRATEGIES FOR THE FUTURE

But it does not end there. Mapei Kft. has no intention of slowing down on its enviable process of growth and plans to make the very best of opportunities offered by one of the most promising macroeconomies: indeed, this year it is estimated that the Hungarian economy will grow by 3.5% and the building industry by 5%. Hardly surprisingly, Miklós Zórándy from the Hungary Federation of Building Industries claim that "We have reached a point when we can talk about a florid building industry that is growing strongly, so all leading players need to make serious plans".

And Mapei Kft. already has its own plan: it is determined to grow by 16%, so that its income exceeds 60 million Euros by the end of 2019.

How does it plan to do this? Firstly, by continuing to improve its facilities: a new production line for liquid admixtures for concrete has recently been brought into operation at its manufacturing plant in Sós-kút, which has also been extended. All this called for an investment of approximately 9 million Euros allowing the installation of a new plant for manufacturing admixtures for concrete, the introduction of a second produc-



Mapei Kft also won this year's "Nicest Booth Award" for the best stand at Construma, the most important trade fair for the construction sector in Hungary.

tion line for manufacturing powder products, investment in robot technology, a rise in manufacturing output from 55,000 to 110,000 tons, and an increase in storage space of approximately 15,000 m². Other areas of the manufacturing plant have also been extended: the staff dining hall, gym, locker rooms, and parking facilities for bikes and motorbikes.

"This investment is both a cause and consequence of the economic growth Hungary has enjoyed over the last few years", so Balazs Rákossy stated, Minister of State for Utilization of EU Funds, who attended the event organised by Mapei on 20th March at the plant in Sós-kút. Lots of the subsidiary's customers and various local authorities were also invited.

"The Mapei Group has complete faith in the Hungarian economy and sustainable growth in the building industry. Not only do we believe in this growth, we also want to make an active contribution to it. We want our investment, our know-how and our safe, eco-sustainable products to help businesses and contribute to the construction of the buildings of the future. That is why the Group has supported growth in the Hungarian economy in a substantial way", so Béla Markovich told us.

"We are Italians in Italy and Hungarians in Hungary. This means we have a better understanding of the country and local demands, so we can develop products that adapt to the market's needs", so Veronica Squinzi stated, the Mapei Group's Global Development Director.

In addition to its facilities, Mapei Kft. will continue to be fully committed to training and communication: in 2019 Mapei Kft. plans to get almost 4000 people involved in its training events, attract 2400 people to its webinars, and organise plenty of initiatives tailor-made for installers. There are also plans to take part in the fourth conference of professionals working in the Hungarian building industry and other leading national trade fairs like Construma, organise five "open days" in schools to promote the building trade, expand its own community of building experts, and promote the "Constructive Penna Award" for journalists paying due attention to the building industry and the professionals working in it.



The Mapei Tour of Zalakaros, held over the course of the weekend from the 21st to the 23rd of June, provided the chance for Mapei Kft to offer two days of sport and fun for all their clients and friends.

Not only the private building sector. The chance of major projects



AN INTERVIEW WITH BELA MARKOVICH,
GENERAL MANAGER OF MAPEI KFT

Why does Mapei Kft hold an annual press conference? Where is it held?

It is very important to have a good relationship with the press to ensure our company's image is held in due consideration. The press conference is undoubtedly one of the most important features of our overall communications and PR strategy; it is a forum which gives us the opportunity to highlight the fundamental principles of Mapei. This year the press conference was held in Sósút in an area specially prepared for the occasion next to our warehouse.

The Hungarian economy and the local construction market are maintaining their growth; what opportunities does this present for Mapei Kft? Which are the most promising sectors?

Mapei Kft has a number of splendid opportunities to grow and develop. Thanks to the increasingly comprehensive range of products

available and the new materials that have been launched on the market, we are in a position to meet the increasing demand from an expanding client base from the construction industry. The biggest opportunities come from the thermal insulation segment, the industrial flooring sector and from the sector involved in restoration work on historic monuments. But there are also many other opportunities in the supply of more "traditional" lines, such as those of products for ceramic, wood and resilient floor and wall coverings.

Apart from the private building sector, is more money also being invested in the public construction and infrastructure sectors?

Yes, more money is being invested in infrastructures such as motorways, highways, motorways and the rail network. The Hungarian government plans to build more than 900 km of new express roads over the course of

the next three years. Not only that; new drain systems will be built as well as many new facilities to treat sewage.

Are tax relief and incentives available for the Hungarian construction industry?

The Hungarian government supports small and medium size businesses to help them grow by promoting expansion projects for their production units and facilities, the purchase of new equipment and machinery and, sometimes, even by offering incentives for training activities. There are also tax incentives to construct residential buildings: lower rates of VAT to build new apartments and special tax breaks for families. And this year, from the 1st of July, it is also possible to obtain a bank loan with lower interest rates to buy a second home.

Do you look outside the country for specialised personnel you are unable to find in Hungary?

There is a problem in Hungary of a shortage of skilled manual workers specialised in construction work. This is why some Hungarian companies take on foreign workers, mainly from Ukraine, Serbia and Romania, but even from Pakistan.

From a bureaucracy perspective, are things more relaxed in Hungary for a company such as Mapei Kft compared with Western Europe?

Not really, because the regulations are pretty similar to those of Western Europe. In fact, in certain instances, I would say they are even more rigid, such as with restoration work on historic monuments.

THE HUNGARIAN GOVERNMENT PLANS TO BUILD MORE THAN 900 KM OF NEW EXPRESS ROADS OVER THE COURSE OF THE NEXT 3 YEARS

FROM SPORT TO LEISURE TIME

A VAST RANGE OF MAPEI SOLUTIONS
USED IN THE CONSTRUCTION
OF CULTURAL CENTRES, TENNIS CLUBS
AND SWIMMING POOLS



CSILLAGHEGY ÁRPÁD SPRING BATHS BUDAPEST

This water-sports centre was recently renovated. EPOJET resin was used to seal the cracks in the substrates of the swimming pools before installing ceramic tiles with KERAFLEX S1* or KERAFLEX MAXI S1. In the saunas, the substrates were levelled off with PLANITOP FAST 330 and waterproofed with MAPELASTIC TURBO mortar and MAPENET 150 mesh before bonding tiles with KERAFLEX EASY S1 or KERAFLEX S1* and grouting the tile joints with KERAPOXY CQ. Glass mosaics were bonded to the walls and in the pools, showers and cabins with KERABOND+ISOLASTIC before grouting the joints with KERAPOXY CQ or KERAPOXY DESIGN. A decorative mosaic measuring 10.7 x 2.7 m was installed in this structure using ULTRALITE S2 as an adhesive and ULTRACOLOR PLUS as a grouting mortar after waterproofing the substrates with MAPELASTIC TURBO and levelling them off with PLANITOP FAST 330.



SOCIÉTÉ RESTAURANT AND BAR BUDAPEST

This building has two restaurants, a bar, an exhibition space, various offices and shops and regularly holds art exhibitions and cultural events. During the course of the redevelopment work, Mapei products were used to prepare (PLANITOP FAST 330 and MAPETEX SEL) and waterproof (MAPEGUARD WP200, MAPEBAND and MAPELASTIC) the substrates. Slabs of engineered stone were bonded to the walls and floors in the bathrooms, bar, kitchen and corridors and on the stairs and columns with KERAFLEX EXTRA S1* or ELASTOCOLOR. All the joints were grouted with ULTRACOLOR PLUS and the expansion joints were sealed with MAPESIL LM. Some of the tables and chairs in the bar were also made from slabs of ULTRATOP self-levelling mortar.



SZILÁRD KISS ARENA SIÓFOK

Apart from sport events this structure also hosts cultural and educational activities and durable floors with an attractive finish needed to be installed. ULTRATOP was chosen for around 500 m² of flooring on the first floor and the ULTRATOP LOFT system was chosen for a further 650 m² of flooring on the ground floor. ULTRATOP was applied after treating the substrates with PRIMER SN, repairing the concrete surfaces with MAPEGROUT T40 and then levelling them off with ULTRAPLAN MAXI. For the floors on the ground floor, using ULTRATOP LOFT enabled a more refined and delicate effect to be achieved. In both cases, MAPELUX OPACA wax was used to finish off the surfaces, after applying ULTRATOP BASE COAT and MAPEFLOOR FINISH 58 W polyurethane finish.

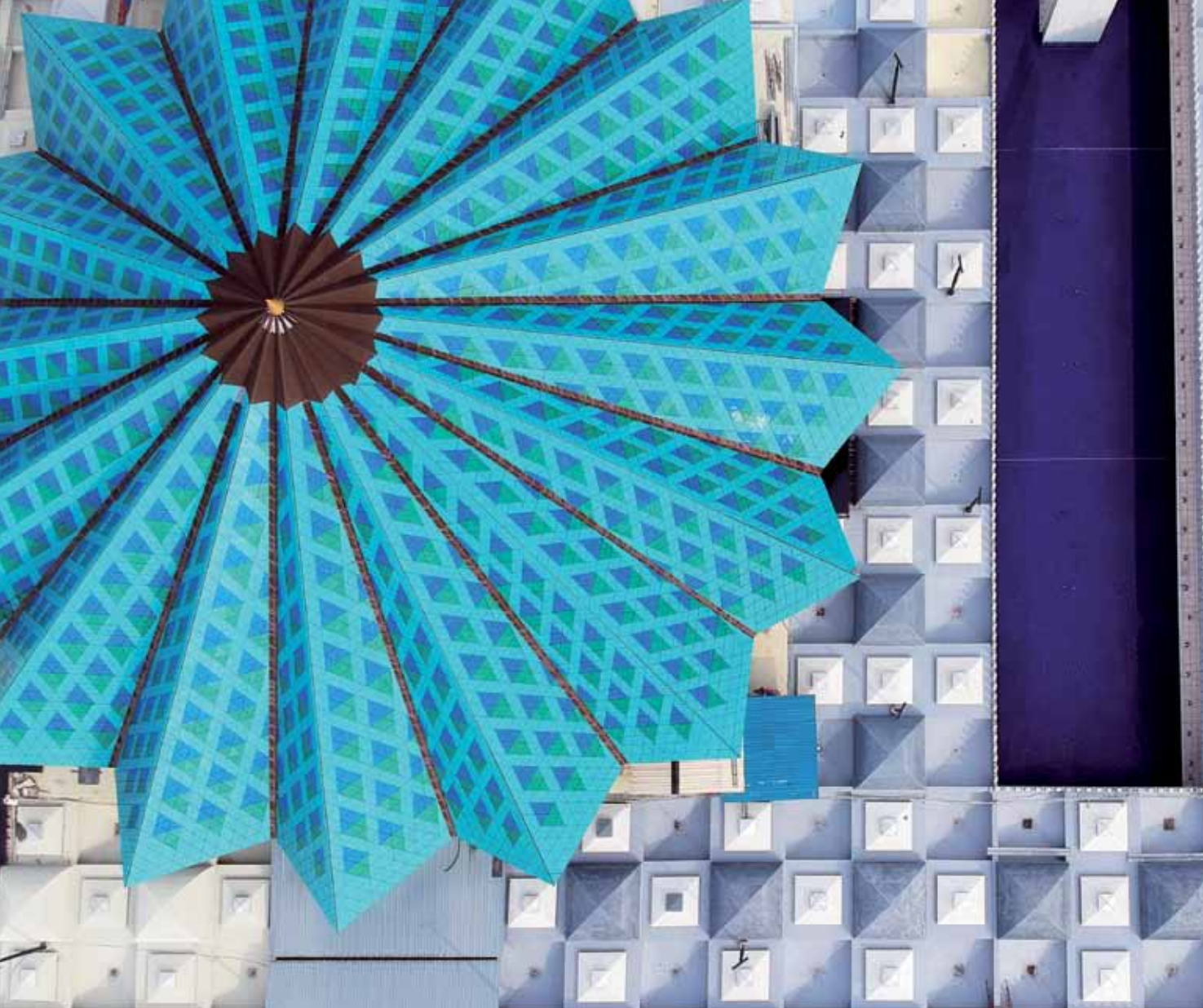


DABAS FC TENNIS CLUB DABAS

Dabas is a town in the north of Hungary and the local council decided to build a cutting-edge sports centre where people could play various sports, such as tennis and 5-a-side football. To ensure the playing surfaces really were poly-functional, the solution chosen was the multi-layered, acrylic resin-based MAPECOAT TNS MULTISPORT COMFORT system. Work commenced by bonding MAPECOMFORT R matting in place with ADESILEX G19 adhesive before applying a coat of MAPECOAT TNS PRIMER EPW and then MAPECOAT TNS GREY BASE COAT. The next step was to apply the coloured coatings MAPECOAT TNS FINISH 1 and MAPECOAT TNS COLOR, followed by MAPECOAT TNS PAINT to provide the best finish possible for poly-functional surfaces suitable for different sports.



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



Kuala Lumpur, Malaysia

NATIONAL MOSQUE

BUILT IN THE 1960'S TO CELEBRATE THE INDEPENDENCE OF MALAYSIA, THE MOSQUE WAS RENOVATED, AND ITS ROOFS WERE WATERPROOFED

Known as Masjid Negara (Masjid is an Arabic word for “mosque”, while Negara means “national”), the national mosque of Malaysia has been classified as a Class 1 Heritage Building by the city’s authorities and is a well-known national monument around the whole of Malaysia. In August, 1957 Malaysia won its independence from Great Britain and the Prime Minister of the time, Tunku Abdul Rahman, proposed building a national mosque to celebrate the event. The new government had the idea of creating new symbols that would unite the country and, apart from developing various sec-

tors of industry and the economy, it also considered the promotion of architecture to be of strategic importance.

THE STAR-SHAPED ROOF

Inaugurated in 1965 after two years of building work, Masjid Negara was designed by the English architect Howard Ashley and the Malaysian architects Hisham Albakri and Baharuddin Kassim, who proposed a building in a contemporary style that would be different from the mosques built in the Moorish-Mughal style typical of the Islamic buildings constructed during the era of British rule.



A view of the National Mosque in Kuala Lumpur.

The roof of the mosque has the form of a 16-point star; 11 of the points represent the states of Malaysia (at the time Borneo was not yet part of the federation), while the other 5 represent the Pillars of Islam. The roof covering the entire complex, on the other hand, is characterised by rows of small cupolas and pyramids, which were originally covered with pink mosaic tiles and then replaced with blue mosaic tiles when the mosque was renovated in 1987.

The blue windows were made in Italy and, just outside the main hall, stands the minaret of the mosque (73 m high). Behind the central body of the mosque, which can hold up to 15,000 worshippers and is characterised by a roof in the form of a 7-point star, there is the Makam Pahlawan (the Heroes' Mausoleum) which houses the tombs of the Malaysian Prime Ministers.

MAPEI SYSTEMS AT WORK

In 2015, to mark the golden jubilee of the mosque, the government gave the go-ahead for a series of interventions that had become necessary over the years to repair and waterproof the roof of the religious complex.

The intervention included replacing and repositioning the mosaic tile covering for the cupolas and pyramids.

The Public Works Department commissioned with the task of choosing which products to use decided to present the

tender specifications to several companies and to invite them to carry out a survey of the site.

Mapei recommended using PURTOP 1000 two-component, solvent-free pure polyurea membrane and KERAPOXY improved, slip resistant, reaction resin adhesive and the proposal received the approval of the client.

THE SOLUTIONS PROPOSED

The long rows of cupolas and pyramids on the roof of the religious complex had been covered with two layers of ceramic tiles as a result of the work carried out previously. To carry out the waterproofing work, Mapei Technical Services recommended removing the top layer of tiles by hydro-blasting. Once the substrate had been prepared, it was treated with a coat of PRIMER SN two-component, fillerized epoxy primer mixed with ADDITIX PE,

a powder used to increase the viscosity and thixotropy of epoxy-based and polyurethane-based resin products.

Then, while the primer was still wet, the surface was broadcast with QUARTZ 30/60, which is distributed in Malaysia by Mapei Malaysia Sdn Bhd.

After removing all the dust from the surface, a 2 mm thick layer of PURTOP 1000 two-component, solvent-free pure polyurea membrane was applied by spray with a high-pressure, bi-mixer type pump. PURTOP 1000 membranes

IN THE SPOTLIGHT

PURTOP 1000

Two-component, solvent-free pure polyurea membrane applied by spray with a high-pressure, bi-mixer type pump, to form waterproof coatings for hydraulic works, roofs and bridge decks directly on site. PURTOP 1000 is suitable for waterproofing membranes on storage tanks, basins and hydraulic works in general as well as for the type of structure that requires a high-performance waterproofing membrane.





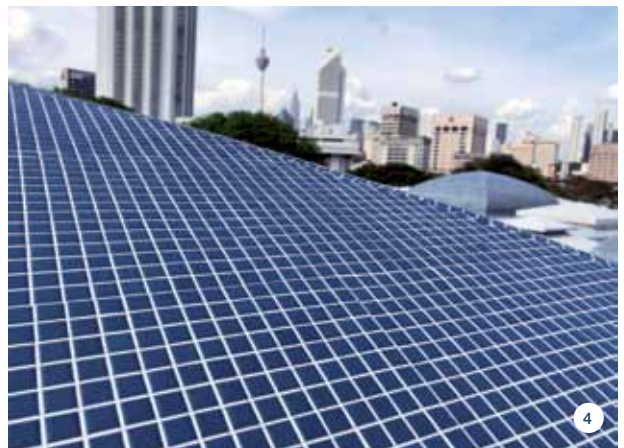
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2



3



4

PHOTO 1. The frames embedded between the pyramids and the cupolas were first cleaned by hydroblasting. **PHOTO 2.** The substrates of the cupolas were waterproofed with PURTOP 1000. **PHOTO 3.** To provide further protection, the frames were treated with MAPECOAT PU 15 finish. **PHOTO 4.** The mosaic tiles were bonded to the cupolas with KERAPOXY and joints were grouted with KERACOLOR FF + FUGOLASTIC

are characterised by their high chemical resistance to alkalis and diluted acids, exceptional flexibility and tear strength, and make the surfaces immediately waterproof after application.

KERAPOXY improved, slip resistant, reaction resin adhesive was chosen to install the mosaic tiles (blue tiles for the cupolas and grey tiles for the pyramids which, from above, form a coloured chess-board effect), while for the joints the preference was for KERACOLOR FF polymer-modified, water-repellent, cement-based grout mixed with

FUGOLASTIC polymer admixture to improve its resistance to abrasion and reduce its porosity and water absorption rate.

On the roof there are also frames embedded between the pyramids and cupolas that needed to be waterproofed because they were causing damp on the ceiling below. In this case, too, work commenced by using hydro-blasting equipment to remove the old waterproofing treatment and any deteriorated areas of the roof. The deteriorated areas were then reintegrated with PLANITOP G40

SP polymer-modified mortar (which is distributed in Malaysia by Mapei Malaysia Sdn Bhd). The next step was to apply a coat of PRIMER SN with a roller and to broadcast the surface of the primer while still wet with QUARTZ 30/60 (distributed in Malaysia by Mapei Malaysia Sdn Bhd), followed by the application of a 2 mm thick coat of PURTOP 1000 by spray. Work was completed by applying a coat of MAPECOAT PU 15 two-component, aliphatic, solvent-based polyurethane finish, which resistant to wear and ultraviolet rays.

TECHNICAL DATA

National Mosque, Kuala Lumpur (Malaysia)

Design: Howard Ashley, Hisham Albakri, Baharuddin Kassim

Period of construction: 1963-1965

Period of the intervention: 2016-2018

Intervention by Mapei:

supplying products for waterproofing and protecting the roofs, installing mosaic tiles and grouting joints on the domes

Design: M. Azahari Architect

Client: Wilayah Persekutuan Islamic Religious Council

Installation company: Structural Repairs (M) Sdn Bhd

Mapei coordinator: Dino

Vasquez (Mapei SpA, Italy), Hanson Foong, Lim Kean Meng, Simon Yap (Mapei Malaysia Sdn Bhd, Malaysia)

MAPEI PRODUCTS

Preparing substrates: Additix PE, Primer SN, Quartz 30/60*, Planitop G40 SP*

Waterproofing: Purtop 1000

Installing mosaics and grouting

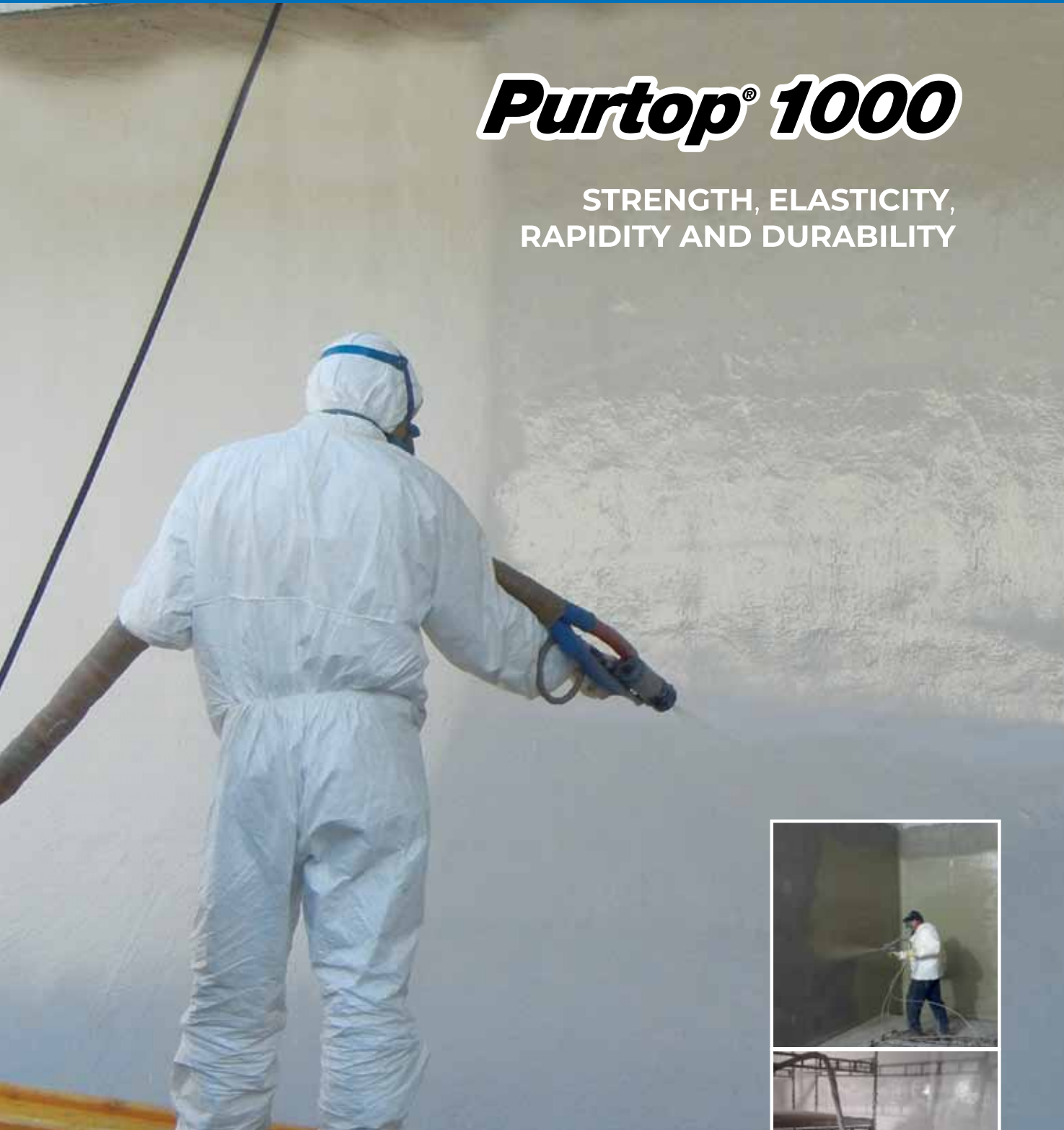
joints: Kerapoxy, Fugolastic, Keracolor FF
Coatings: Mapecoat PU 15

*These products are distributed in Malaysia by Mapei Malaysia Sdn Bhd

For further information see www.mapei.com and www.mapei.com.my

Purtop® 1000

STRENGTH, ELASTICITY,
RAPIDITY AND DURABILITY



Purtop 1000 is a solvent-free, spray-applied, polyurea **waterproofing membrane** that enables surfaces to be immediately waterproof and subject to foot traffic. Thanks to its high resistance to chemicals and exceptional elasticity, it may be applied on a wide range of surfaces to create a layer that is elastic, durable and strong.

EVERYTHING'S OK WITH **MAPEI**

Learn more on mapei.com



Rho (Milan, Italy)

CORTE VISCONTI

COMPLETE WATERPROOFING TREATMENT, FROM FOUNDATIONS TO ROOFTOP, FOR A BUILDING IN THE OLD TOWN CENTRE



PHOTO 1. MAPEPROOF LW sheets were used for waterproofing the foundations.

PHOTO 2. MAPESIL LM was used to seal the joints of the stones on the thresholds leading to the terraces and balconies.

A blend of town life, nature and history. Corte Visconti was built for those wishing to live in an urban dimension within the intimacy of a small-town offering services you would normally find in a large metropolis. The new apartments in the old part of Rho, in the outskirts of Milan, have been built by adopting cutting-edge energy savings technology. The new residential complex has been built within the grounds of the park behind historic Villa Visconti Banfi. The new building has three floors and has been designed to follow the main body of the Villa. On the north side the apartments overlook the park, with sitting rooms which open up through large windows onto spacious terraces, while on the south side they overlook a traditional courtyard in the old part of Rho.

WATERPROOFING EVERY TYPE OF SURFACE

Mapei's extensive experience, along with its comprehensive range of products, played an important role in bringing such a technologically-advanced residential construction together.

The initial phase of the work included the installation of MAPEPROOF LW for waterproofing the foundations. These bentonite sheets for structures below ground level were also folded up against the diaphragm walls of the foundations. As for the waterproofing work on the terraces and balconies, the system adopted consisted of a double coat of MAPELASTIC TURBO flexible mortar with MAPENET 150 reinforcing mesh, as well as MAPEBAND tape to seal the expansion joints and corners and the DRAIN FRONT TPE angular pipe union which was installed in the parapet to help rain-water flow away. The wood of the roof was waterproofed with self-adhesive



ABOVE. Ceramic tiles were bonded with KERAFLEX MAXI S1 adhesive.

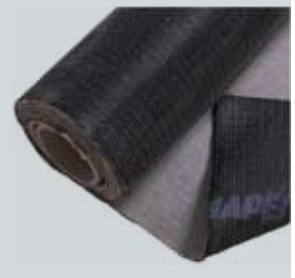
membranes made with distilled bitumen polymer of the ADESO line produced by Polyglass, a Mapei subsidiary.

The floor slab on the ground floor under the hanging garden was waterproofed with PURTOP 1000, two-component, solvent-free pure polyurea membrane, after treating the surfaces with PRIMER SN two-component, fillerized, epoxy primer and TRIBLOCK P three-component, epoxy-cementitious primer, which were both used to ensure the polyurea membrane would adhere perfectly.

The screeds throughout the building were made from TOPCEM PRONTO ready-to-use, normal setting, quick-drying mortar with high thermal conductivity, while KERAFLEX MAXI S1 high performance, deformable, cementitious white adhesive was used to bond the ceramic tiles inside and outside each of the apartments and on the balconies. MAPESIL LM sealant was used to seal the stones used for the thresholds leading to the terraces and balconies, while MAPESIL AC mould-resistant, acetic, silicone sealant was used to seal all the features in the bathrooms of the apartments. Lastly, MAPEFIX chemical anchors were used to fix the railings in place.

IN THE SPOTLIGHT MAPEPROOF LW

Bentonite waterproofing sheets for structures below ground level, suitable for both horizontal and vertical surfaces. It is ideal for waterproofing horizontal and vertical concrete structures in environments below ground level, below slabs, on retaining walls, against diaphragms and soldier-pile walls. It can be used to waterproof concrete structures below ground level with a water table less than 5 m.



TECHNICAL DATA

Corte Visconti, Rho (Milan, Italy)

Period of the intervention: 2012 - 2017

Period of the Mapei intervention: 2012 - 2017

Intervention by Mapei: supplying products for waterproofing foundations and balconies and installing ceramic tiles

Client: Immobiliare Visconti Srl

Design: Laura Ferrario

Works director: Laura Ferrario

Site director: Claudio Colombo

Safety coordinator: Renato Veronesi

Main contractor: Zion Srl

Installation company: Baessato Srl

Mapei coordinator: Fabio Messina, Mapei SpA (Italy)

MAPEI PRODUCTS

Building screeds: Topcem Pronto

Waterproofing and preparing

the substrates: Mapeproof

LW, Mapenet 150, Mapeband, Mapelastic Turbo, Drain Front, Purtop 1000, Primer SN, Triblock P

Installing ceramic tiles: Keraflex

Maxi S1

Sealing joints: Mapesil LM,

Mapesil AC

Anchoring: Mapefix anchors

POLYGLASS PRODUCTS

Adeso membranes

For further information on products see www.mapei.com and www.polyglass.com



Mantua (Italy) GREEN PARK CARE HOME

INSTALLATION OF CERAMIC TILES
FOR THIS NEW HEALTHCARE CENTRE:
ONE OF THE LARGEST AND MOST
ADVANCED IN NORTHERN ITALY

The new Green Park care home was inaugurated on the 22nd of December last year, with work being completed right on schedule after less than one year. The structure is immersed in natural woodland within the confines of what is known as the Health Park, on the outskirts of Mantua (Northern Italy).

The new home is one of the largest and most advanced of its kind in the area and has been designed and constructed using cutting-edge techniques so that guests can enjoy the highest level of comfort.

The care home is divided into two units, the “Residenza Ducale” and the “Residenza Te”, the first one being a classic care home for 120 guests, while the second one, and a real novelty for the Mantua area, has space for a further 120 guests in wards for particularly serious conditions which are, unfortunately, on the increase: Alzheimer’s, patients in a vegetative state, patients with motor neurone disease or on life support and patients in need of post-acute care.

The names for the two homes were specifically chosen to underline the strong bond with the area.

INSTALLATION OF LARGE-SIZE PORCELAIN TILES

Inside the Green Park Care Home, various formats of porcelain tiles supplied by the Romani group were installed (20X90 cm, 60X 60 cm e 100X100 cm) on anhydrite-based substrate



IN THIS PAGE. Ceramic tiles were installed in several areas of the care home by using KERAFLEX EASY S1, while joints were grouted with ULTRACOLOR PLUS.

IN THE SPOTLIGHT KERAFLEX EASY S1

It is a high performance, deformable, cementitious white adhesive with extended open time and no vertical slip, for ceramic tiles and stone material, with Low Dust technology and very low emission level of volatile organic compounds. It is especially suitable for the installation of large-size porcelain tiles and natural stone. When mixed with water KERAFLEX MAXI S1 features low viscosity; good capability to accommodate the different deformation of the covering from the substrate;



perfect adherence to all materials normally used in building; particularly extended open and adjustability time; it is highly thixotropic and can be applied on a vertical surface without slumping or letting even heavy and large tiles slip.

with underfloor heating over a total surface area of around 21,000 m².

The walls in the bathrooms, made from special plasterboard suitable for damp surroundings, are covered with tiles measuring 30X60 cm and the bathrooms also feature floor-level shower trays.

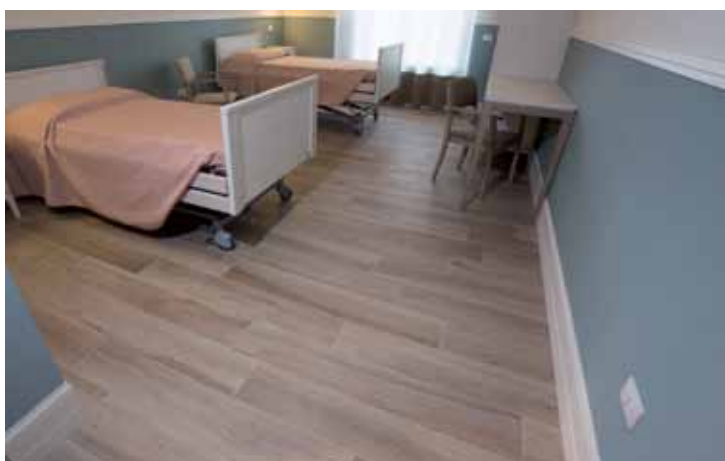
Once the substrates had been levelled off and the surface had been sanded down, they were treated with a coat of PRIMER G, a synthetic resin-based primer in water dispersion with very low emissions of volatile organic compounds (VOC).

Before installing the shower trays, the anhydrite substrates were waterproofed with MAPELASTIC TURBO, a two-component, elastic, rapid-drying cementitious mortar, along with MAPEBAND EASY, a special rubber tape used to form elastic joints in waterproofing systems. Special accessory items from the MAPEI DRAIN line were used around the drainage points to help water drain off correctly.

MAPELASTIC TURBO waterproofing mortar was applied in two coats on the substrates with a trowel, with MAPENET 150 alkali-resistant fibre glass mesh embedded between the two layers.

The ceramic tiles were installed with KERAFLEX EASY S1 high performance, cementitious adhesive. Joints were grouted with ULTRACOLOR PLUS high-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology.

The expansion joints were sealed with MAPESIL AC sealant after applying a coat of PRIMER FD (adhesion promoter for siliconic sealants) along the edges of the joints and inserting MAPEFOAM closed cell polyethylene foam cord



TECHNICAL DATA
Green Park care home,
Mantua (Italy)
Year of the intervention:
2018

Intervention by Mapei:
supplying products for waterproofing substrates and installing porcelain tiles
Client: Gruppo Mantova Salus
Design: Studio Nicchio
Works director: Claudio Colombo
Installation company: Superficie 71 Srl
Mapei distributor: Munarini Srl

Mapei coordinators: Andrea Bettini, Carlo Alberto Rossi and Mirko Demichele, Mapei SpA (Italy)

MAPEI PRODUCTS
Preparing and waterproofing substrates: Primer G, Mapelastic Turbo, Mapenet 150, Mapeband Easy
Installing ceramic tiles: Keraflex Easy S1
Grouting and sealing joints: Ultracolor Plus, Mapesil AC

For further information on products see www.mapei.com

Installing and refurbishing bathrooms

A COMPLETE RANGE OF PRODUCTS FOR ALL YOUR NEEDS

Inside every home, whatever its type of use, not only does a bathroom need to live up to our expectations in terms of aesthetics, more importantly it must be functional and hygienic, which means it becomes very important to choose the right materials (floor and wall coverings, adhesives, waterproofing products and paints) when carrying out work in bathrooms. Whether you are refurbishing a bathroom or shower or installing a completely new one, Mapei has an extensive range of products available characterised by innovative technology and cutting-edge solutions, from waterproofing products for surfaces to adhesives for bonding and installing different types of material.

For example, to level off surfaces by filling depressions and holes we recommend using NIVORAPID ultra-fast setting, thixotropic, cementitious levelling compound, while if you need to render a wall before applying a wall covering or a coloured coating, you may choose to use NIVOPLAN levelling mortar mixed with PLANICRETE latex, which helps it bond more firmly to the substrate and improves its final performance properties. To waterproof substrates we recommend using MAPELASTIC

two-component, cementitious mortar or MAPELASTIC AQUA-DEFENSE ready-to-use, ultra-quick drying, flexible liquid membrane. All the products mentioned above are available in our Building Products line.

On dry substrates you may apply your floor or wall covering of choice with one of the many adhesives proposed by Mapei and available from the Products for Ceramic Tiles and Stone Material line, depending on individual requirements and the type of material to be bonded: ceramic, stone, large format tiles, glass mosaic, etc.

For instance, you can use KERAFLEX, a high-performance, cementitious adhesive with no vertical slip and extended open time for ceramic tiles and stone materials.

And from the same line there is also an extensive range of sealants and grouts available, including ULTRACOLOR PLUS high-performance, anti-efflorescence, non irritating quick-setting and drying polymer-modified mortar with DropEffect® and BioBlock® technology for grouting joints from 2 to 20 mm wide, to guarantee that over the years surfaces remain perfectly water-repellent and resistant to the formation of mould.

A few examples of bathrooms completed with Mapei products.

Private home
London (UK)



Botín Center
Santander – Spain



Excelsior Hotel Gallia
Milan (Italy)



Under Restaurant
Båly - Norway



Private home
London (UK)





EVERYTHING'S
OK
WITH
MAPEI

Keraflex[®]

From the **Mapei Research & Development** Laboratories, the range of **Keraflex** cementitious adhesives: high performance products to improve installation of ceramic and stone tiles.

Certified for the wellbeing and living comfort of end users.



Lignano Sabbiadoro (Italy)

THE NEW TRIESTE WATERFRONT

LANDSCAPE+FUNCTIONALITY
+DURABILITY FOR THIS
REDEVELOPMENT AND
REFURBISHMENT PROJECT



Landscape-functionality-durability: these were the three guiding themes for the redevelopment and refurbishment project of the waterfront in Lignano Sabbiadoro and, of course, the reason why there was such a beautiful result, handed back to the town after two years of work, to mark the inauguration of the 2019 tourist season, the very year that has been dedicated to the Slow Tourism movement.

Eight kilometres of beaches with fine golden sand, caressed by a habitat of rare beauty with its natural sand dunes, have been attracting visitors for over a century. It all started in 1903 with the opening of the first beach resort. The 1920's witnessed the development of new infrastructures to promote tourism and then, in the 1930's, to gain the maximum amount of publicity, the slogan "Lignano dalla sabbia d'oro", or "Lignano Golden Sands" was coined, which since then has become one and the same thing with the name of the town. Hemingway spent a lot of time there in the 1950's and affectionately called it "the Florida of Italy".

Lignano is still a highly popular tourist spot with an extensive range of experiences and services on offer to tourists. So, intervening in a context like Lignano Sabbiadoro means integrating and harmonising a whole series of particular characteristics and needs, but at the same time needs which are a common feature of many Italian waterfronts, including tourism, accessibility, history, services, environmental, social and economic sustainability, nature and landscape.

PROJECT OVERVIEW

The aim of the project was to create a virtuous blend of greenery, landscape and architecture and to redefine its functions, mobility and parking, technological facilities and utilities.

Which is why, when talking about the project, the designers specified that, "The project for the waterfront in Lignano Sabbiadoro envisages a new landscape, where both the existing vegetation and the new vegetation introduced by the project play a key role".

The client, in this case Lignano Sabbiadoro town council, specified that the intervention had to guarantee maximum functionality, accessibility and durability so as to reduce maintenance work and costs to a minimum.

The Local Heritage Body, for their part, specified that the rhomboid pattern and layout of the existing concrete paving had to be maintained.

The project, therefore, was conceived in such a way that the paving along the waterfront was to be the main framework of



Along the Trieste waterfront in Lignano stone paving was installed with the MAPESTONE system while the exposed aggregate concrete paving was built using the MAPEI COLOR PAVING® system.

the entire intervention, a sort of link between the sea and the town, and the central theme around which all the activities could be programmed: pavements, cycle lanes, carparks and the road. The paving was created as if it were an urban carpet, a pattern to give it more meaning, to embrace and design all the functional requirements of the place, using mainly two types of material: architectural concrete and natural stone. Apart from a complete remodelling of the vegetation, conservation of the historic double row of trees along the waterfront was the element that became the other key feature of the project. A team of landscape designers, agronomists and skilled technicians worked together to measure the conditions of the local environment, evaluate the most innovative systems to preserve the existing trees and identify the most suitable trees to be introduced. The landscape designers and design engineers working on the project found themselves facing the same environmental challenges due to the high levels of salt in the area and the severe weather conditions during the winter. This is why, during the executive phase, the Works Direction decided to opt for a durable installation system that would stand up to the freeze-thaw cycles, de-icing salts and sea water and found that the MAPESTONE and MAPEI COLOR PAVING® systems suited their needs perfectly.

MAPEI SOLUTIONS FOR THE PAVING ALONG THE WATERFRONT

The paving is made up of areas of grey and light-coloured stone to create an irregular chessboard pattern along the pavements on the north side and all the piazzas included in the project, to become the focal points of the flows of traffic and pedestrians, while the cycle lane and the pavements on the south side are made from architectural concrete with an exposed aggregate finish. Both types of paving are open to vehicle traffic and sit on a reinforced concrete, load-bearing substrate.

The stone paving for the piazzas and the pavements on the north side are made from two types of material, Yellow Istrian stone with a bush-hammer finish and Piasentina stone with a bush-hammer or flamed surface finish. Mapei engineers proposed using the MAPESTONE system, specifically developed for installing stone paving in urban settings at a lower cost but with a host of advantages. In fact, the MAPESTONE system includes products from exposure class XF4 and complies with the requirements of UNI 11714-1:2018 and EN 206-1 standards, thereby guaranteeing the durability of the paving. Stone road surfaces installed using this system are resistant to freeze-thaw cycles, de-icing salts and rain, while the



mortars are durable and they maintain their properties over the years, which means it takes a number of years before the paving requires any maintenance work. They also have the capacity to withstand mechanical stresses caused by the passage of vehicles, including heavy goods vehicles, and dangerous hollows caused by structural failure do not occur on the surface.

In the case of the Trieste waterfront, to install the paving stones, which on average were around 5 cm thick, the product used was MAPESTONE TFB CUBE pre-mixed mortar, while the joints (5 mm wide on average) were grouted with MAPESTONE PFS2, a pre-mixed mortar for grouting architectural paved surfaces made from small blocks/setts, smaller bricks, cobblestones, slabs or blocks.

For the pavements along the south side and the cycle track with an exposed aggregate finish, Mapei engineers proposed using MAPEI COLOR PAVING®, a system that allows you to design and create bespoke concrete paving according to expected loads and stresses. In the case of the Trieste waterfront in Lignano, using this system meant that the mix and aggregates used to create the surface finish could be personalised: for the pavement along the south side the colour chosen was sand, to create the desired effect of imitating the sandy beach, while grey and red were chosen for the cycle lane and all the other areas. Also, the particle sizes of the exposed aggregates and the mix of colours of the aggregates were varied slightly in different areas, which highlighted the exposed areas and the areas of paving with different functions even more.

PHOTO 1. Applying the bonding slurry prepared with PLANICRETE on the rear side of a stone slab.

PHOTO 2. The stone slab is ready to be installed with MAPESTONE TFB CUBE.

PHOTO 3 and 4. Applying MAPESTONE PFS 2 for grouting joints with a rubber rake.

PHOTO 5. A detail view of the concrete paving after completion of the works. The exposed aggregate finish was intended to imitate the colour of the sandy beach.



TECHNICAL DATA

Trieste waterfront, Lignano Sabbiadoro (Italy)

Period of construction: early 1950's

Year of the intervention: 2017-2020

Intervention by Mapei: supplying products for building architectural stone and exposed aggregate concrete paving

Client: Lignano Sabbiadoro town council

Design: R.T.P. Proger SpA,

Archest Srl, Seste Engineering Srl, Michielizanatta, archt. Gaetano De Napoli, Geomok Srl

Contractors: A.T.I (Associazione Temporanea Impresa) Lungomare Lignano S.C.A R.L., Impresa Polese SpA, Adriacos Srl

Architectural concrete flooring contractor: Lithos Pav di Leone Savino

Stone paving contractors: Posatori Porfido Meta Sas, Posa Porfidi 3000 Srl,

Friulpose Snc
Works direction: Lucio Asquini, Samuele Gialuz, Massimiliano Travagini, Tommaso Michiele, Cristian Zanatta; Flavio Trinca, Alessandro Ricetto, Moira Picotti

Mapei coordinators: Ivan Carlon, Marcello Deganutti, Giuseppe David, Claudio Azzena and Luca Nordio, Mapei SpA (Italy)

MAPEI PRODUCTS

Installing and grouting stone paving:

Mapestone TFB Cube, Mapestone PFS 2

Building exposed aggregate concrete floors: Mapei Color Paving®

For further information on products see www.mapei.com



IN THE SPOTLIGHT

MAPESTONE TFB CUBE

Mapestone TFB Cube is a premixed ready-to-use mortar for the installation of natural stone units for external paving and road finishes. Thanks to its special composition, MAPESTONE TFB Cube is particularly recommended for making beddings for architectural road surfaces in stone cubes, pebbles, setts, slabs and precast units. It is easy to use: it only needs to be mixed with water and may be prepared in either a plastic or “no-slump” consistency, depending on the type of paving units to be laid.



Interview with Samuele Gialuz, Works Supervisor for the building work

“ ENHANCING THE LINK BETWEEN THE TOWN AND THE BEACH

What constraints and requirements were imposed by the client for the redevelopment and refurbishment project of Trieste waterfront in Lignano?

The client asked the design team to use materials that offered the maximum durability coupled with low non-scheduled maintenance requirements.

What challenge or challenges did you have to face during this project?

To maintain the existing trees and create an aeration system for the roots of the marine pines to improve their stability. Also, it was extremely complicated to rebuild the rhomboid-shaped reinforced concrete paving using stone and metal mesh (as specified by the Local Heritage Body) and to identify the most suitable mix of exposed aggregate concrete that could simulate the effect of sand being blown onto the road (another requirement of the project).

Why did the designers opt for stone and exposed aggregate concrete for the paving?

The main aim of the urban strategy for the waterfront was to close the gap, which was in part an inherent feature which had become accentuated over the years, between the beach and the town, to give them back their role as the measure and stimulus for the development of this seaside town. The intention was for the waterfront to become a meeting point between these two realities and to encourage their osmosis, not just a simple point of passage or a border.

The reason for choosing these materials was to create attractive paving that was also highly durable, to enhance the intersection system between the town and the beach. Stone paving was chosen to connect the town to the main services offered by the beach by having a pedestrian route on the northern side of the waterfront marked out entirely in stone, while the paving on the south side in yellow exposed aggregate ties it in with the sand of the beach. For the road, on the other hand, in agreement with the Local Heritage Body, it was decided to use concrete with exposed aggregate to recall the paving from the past installed in 1936 as a landing strip for military aircraft.

What is the most original or distinctive feature of this project?

Undoubtedly it is the way we have managed to maintain all the existing trees and improve their conditions, with an innovative aeration system for their roots, which makes the trees more stable by anchoring the roots more firmly. In all we treated 405 trees, 29 of which had to be replaced because they had been fallen or been damaged by storms or disease; at the start of the project it was estimated that 40 of them would have to be replaced. By choosing this innovative aeration system not only did we improve the living conditions of the trees, it was also possible to have the stone and exposed aggregate concrete paving right next to each other and considerably reduce the physiological problem of the roots of the trees protruding and damaging the surface which, without such a system, are the cause of the typical and dangerous lifting of paving.

1

Mapei Football Center for everybody

BUILT FOR PROFESSIONALS BUT OPEN TO AMATEURS.
“TEST-EVENT” WITH THE BELGIAN UNDER 21 TEAM

Sassuolo is the only Italian professional Serie A football club in modern times to have built its own training center that can also be used by members of the general public. Top clubs from big cities in Italy and abroad do not usually allow amateur football teams to use their training facilities. Sassuolo Calcio does. Of course, everything has to be carefully planned and arranged, but it is a unique opportunity no other club offers.

The owner of the club, Mr Giorgio Squinzi, recently opened Mapei Football Center in the Cà Marta district of Sassuolo, Central Italy (see *Realtà Mapei International* no. 75) So, anybody who plays football, even just for fun, can play on the same pitches as professional footballers in the Italian Serie A, thanks to an agreement between Sassuolo Calcio and Sassuolo City Council. “In accordance with these arrangements – so Andrea Fabris, Sassuolo’s General Secretary, pointed out - all kinds of people can use the synthetic grass pitch in the evening. Working with the City

Council, we are also coming up with ideas and organising tournaments at Mapei Football Center for teams made up of locals or local football clubs, possibly even involving Sassuolo Calcio”. Even though it is a football center, it can also host other kinds of events: “Again by request and in partnership with Sassuolo City Council – Mr Fabris went on to say - the Mapei Football Center could also host social events”.

Mapei Football Center is now operating at full swing. “Sassuolo first-team – so Mr Fabris noted - mainly trains on pitches 1, 2 and 3 (i.e. the grass pitches). Viewed from the main entrance, they are the playing fields on the left. More specifically, winter training will take place on the pitch with underground heating. This freeze-proof and snow-proof heated playing field will be less dangerous to use. Technically speaking, this should mean fewer injuries. On the other hand, our youth teams will train on the large synthetic grass pitch over on the right with its own stand and on two other

pitches. We have a total of 21 men’s and women’s teams, starting with our very youngest players right up to Serie A professionals. We are currently working out the ideal plan for making the best possible use of the pitches, gym, clinics and facilities for holding trials for young players”.

BELGIUM-MAPEI, A LONG-STANDING PARTNERSHIP

The first team to train at the Mapei Football Center after the official opening ceremony (that took place on 10th June) was the Belgian Under 21 team as it got ready to take part in the final matches of the European Championship. The

45,000 m²
TOTAL SURFACE AREA
OF THE FACILITY
(INCLUDING TWO
EXISTING PITCHES)

6,097 m²
FLOOR SPACE

6 PITCHES



Gabriele Gravina, President of the Italian Football Federation.

GRAVINA: “THE VERY BEST IN ITS SECTOR”

Gabriele Gravina, aged 65 and President of the Italian Football Federation (FIGC), is an admirer of the new Mapei Football Center.

President Gravina, what do you think of Sassuolo’s new training center?

“It is the very best you can have in this sector: a modern, sustainable and fully-functional facility, which clearly indicates, even visually, the club’s strategies of

focusing maximum attention on the first team without overlooking the youth and women’s teams. One outstanding feature is the position of the central building holding the offices and main team facilities, which, since it overlooks the playing fields, allows a perfect view of all the pitches. The building actually seems to be pointing out that everything is geared to sport”.



8 CHANGING ROOMS

56 SHOWERS

2 GYMNASIUMS

2 PHYSIOTHERAPY ROOMS

2 CRYOTHERAPY BATHS

1 PHYSIOTHERAPY POOL

170 SEATS IN THE SPECTATOR STAND

50 NEW TREES

300 M OF NEW BUSHES

135 ATHLETES

34 TECHNICIANS AND STAFF

8 PHYSIOTHERAPISTS AND DOCTORS

50 OFFICE SPACES

10 MAINTENANCE STAFF

team is trained by Johan Walem, who is well known in Italy after playing for a few big clubs. Talented young players being scouted by important European clubs also got to train on the Cà Marta pitches. “We are delighted to have made our facilities available to a national team”, so Mr Fabris was quick to note. Having Belgium as the Center’s first guest at the new enter should augur well for the future. Mapei has always had very close ties with Belgium and its sports people. This dates back to the days of the Belgian riders Museeuw, Steels, Vandenbroucke, Merckx and Peeters, who collected plenty of victories for the Mapei Professional Cycling Team.



The Belgian Under 21 team was the first to train at Mapei Football Center after it officially opened.

In certain circumstances, Mapei Football Center will be open to people from Sassuolo to play football. Lots of amateur footballers will get the chance to play and have fun on pitches usually used by professional players from the Italian Serie A. What do you think about that?

“It is an excellent way of creating even closer ties between the club and local community. As a whole, football has great

responsibility towards civil society from which it benefits so much. In return, it must acknowledge all its enthusiasm, joy and respect. Taking part at all levels is a value the football world must safeguard and promote”.

What you think about the Mapei Group’s business philosophy in general?

“The Mapei Group invests heavily in the

world of football and we are extremely grateful for this. It does so respecting certain principles of fairness and competitiveness, while also focusing on young people and investing in infrastructures. Owning its own stadium and sports center are perfect examples of this. This means it is perfectly in line with the Italian Football Federation’s guidelines for developing the whole of Italian football”.

2

Mapei Football Center

THE DESIGN

ARCHITECTURAL DESIGN GUIDELINES
BY ONSITESTUDIO

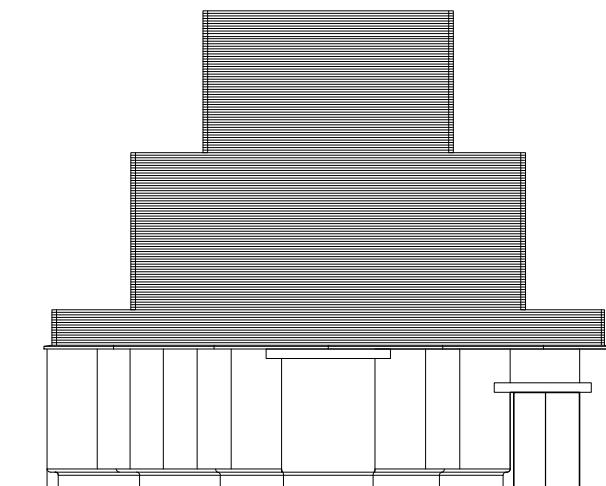
After already owning its own stadium, the Mapei Stadium, since the 10th of June Sassuolo Calcio now has a new home: the Mapei Football Center. "A structure of excellence in the field of sports facilities", declared Giorgio Squinzi, CEO of the Mapei Group, "And further support for the first team and youth teams, as well as a place where fans and the local communities can meet, thanks to the numerous initiatives and projects that Sassuolo Calcio is planning to organise to encourage even more integration". Thanks to the club's synergy with Mapei, in just a short space of time Sassuolo Calcio has managed to build a new facility with 6 pitches, one of which has a covered spectator stand, so that the first team and teams from the youth sector can train together. There is also a building where the center's main offices are based and two smaller service buildings.

TRADITION AND INNOVATION WITH AN EYE ON THE LANDSCAPE

The center was designed by the Onsitestudio design studio, in partnership with Studio Giorgetta Architetti Paesaggisti. The premise for the facility was that it should maintain a relationship with the surrounding flat, open farmland, with the building becoming a part of the landscape looking out towards the open fields and the new pitches, as if it were a main gate opening onto a system of centuriation.

The design for the building, which takes inspiration from the forms and architectural features of the past (such as colonnades, porticoes, recesses, the use

BELOW. Photos of the constructions that inspired the architects. From left, the main facade of San Petronio Church in Bologna, ancient Florentine football played in Piazza Santa Croce in Florence, and a scale model of the project. Bottom right, a picture by the photographer Luigi Ghirri.



North façade - entrance.



of symmetry, its bricks and proportions and details of the facades) is an attempt to view the present as an integral part of tradition and a collective quest.

The typological reference is to the in-line elements, based on the repetition of brick structures of the great agricultural service architectures, such as the so-called "barchesse" or the ancient ceramics factories of this area, or to the sports buildings of Greek and Roman antiquity, that were arranged longitudinally on the edge of the fields.

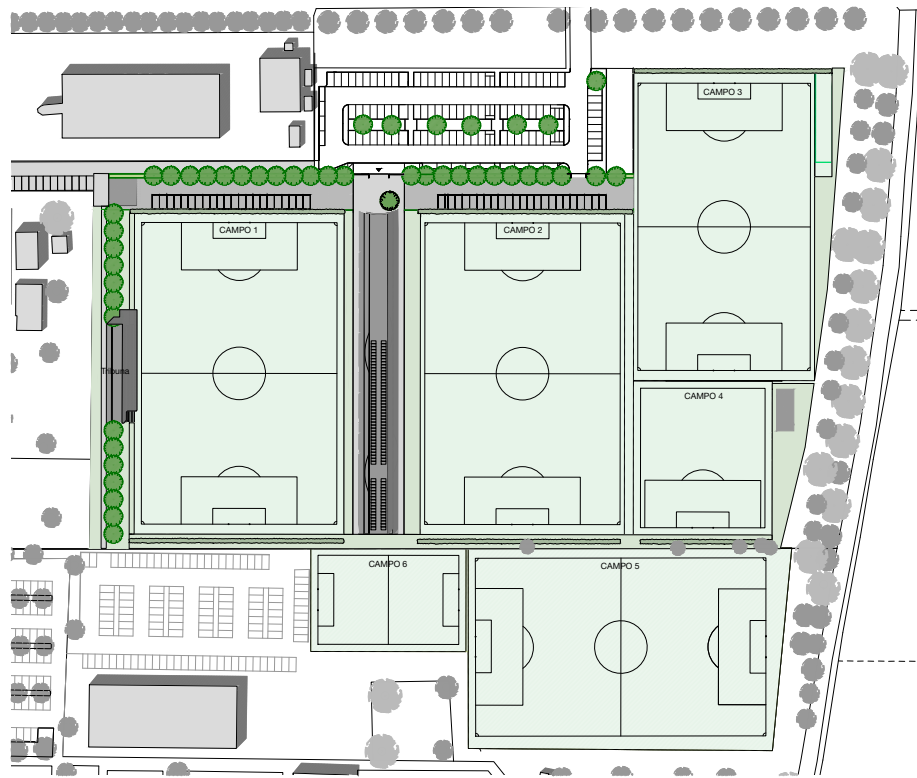
CONSUME AS LITTLE SOIL AS POSSIBLE

The building is similar in size to the pitches, creating a calming effect, and is visible from a great distance, a landmark that is easy to recognise as if it were part of the landscape, giving a sense of continuity to the historical memories of the horizontal farming system, and giving it a new sense. The



controlled scale of the building (around 12 m high) helps it become part of the landscape so that it provides a discreet backdrop to the trees, while leaving an open view towards the Modena Canal and the distant horizon. The building seems to echo an image by the photographer Luigi Ghirri (Cittanova, 1984) for its expression of the ambiguous and particular monumentality of the facades of isolated civil and religious buildings positioned along the horizontal landscape of Via Emilia in Central Italy.

There are six playing fields (3 new grass pitches, 1 new synthetic grass pitch, 1 refurbished synthetic grass pitch, 1 old grass pitch).



The north façade is the main one and is where the entrance has been positioned. It is curvilinear, so that it can receive sunlight from both the east and west, and is also concave, to welcome the flows of people arriving from both the sides and from the front. A bench running along the curve of the façade defines a small piazza featuring a large oak tree.

SOBRIETY IN THE CHOICE OF MATERIALS

The design of the inside of the building, featuring a mix of materials that require no further finishing treatments, represents the tone and the sober yet articulated atmosphere, spartan but at the same time sophisticated, of spaces like those required by these types of facilities. The horizontal and vertical reinforced concrete structures have an exposed finish, just like the finish of the precast, prestressed concrete floor slabs. The openings along the inside of the perimeter walls and the main corridors are made from blocks of white cellular con-

crete with two types of finish: rough or exposed with a polished finish to ensure the durability of cleaning operations and to eliminate maintenance work in spaces that are used frequently and are often crowded.

The floors in the distribution spaces, changing rooms, and physiotherapy rooms are in coloured resin, while rubber has been used for the floors in the gymnasiums. The office areas have wooden floorings and the service areas and tech-

nical rooms have ceramic floors.

The walls in the service areas are covered with fine ceramic tiles up to a height of 2 m, while the remaining areas have been painted, apart from the distribution areas and the walls bordering with the outside, which are made from concrete blocks with an exposed finish.

Giancarlo Floridi and Angelo Lunati.

Onsitedudio



Gym with rubber floors



Utility areas with surfaces covered with Mosaico+ tiles



First-team dressing room with resin floors

3

A new synthetic grass pitch with a cutting-edge drainage system

THE SURFACE WAS TREATED WITH MAPESOIL TECHNOLOGY

A new synthetic grass pitch has been installed at the Mapei Football Center in Sassuolo (Central Italy). It is made from the latest generation of synthetic turf and has a cutting-edge drainage system that complies with widely used design specifications, particularly when having to operate in highly anthropized urban settings a long way from sources of aggregates.

The pitch was installed on new, virgin land situated along the old bed of the River Secchia characterised, from a geological point of view, by river deposits of mainly gravel mixed with highly plastic, enlarged particles of loose clay. Preliminary work needed to be carried out to create sufficient drainage for the pitch, which consisted in removing the top soil, removing the existing soil from around the organic matrix and shaping the ground to form a crown. Non-

woven geotextile fabric was then laid on the area of prepared ground, along with a special, flat synthetic strengthening geomesh made from extruded, bidirectional polypropylene which, thanks to its high level of tensile strength and the way it interacts with the ground, increases the load-bearing capacity of the area and, more importantly, improves load distribution.

What is more, the combination of non-woven geofabric and bidirectional geomesh forms a geocomposite that has particular strengthening properties and also acts as a separation filter, typical of non-woven fabrics.

The next step was to apply a layer around 20 cm thick of 0–35 mm road base material (recycled material may also be potentially employed), of which around the top 15 cm were stabilised with MAPESOIL 100 fibre-reinforced

stabilising agent.

Once the ground had been shaped and then treated with MAPESOIL technology, a high-performance draining under-mat made from SBR and thermoplastic polymer binder with horizontal drainage was laid on the surface and, to complete the work, artificial turf of the latest generation with high-performance, ennobled elastomeric rubber infill was laid. This means that water now flows away just below the playing surface, that is, through the pervious under-mat, and is carried down the slope of the crown to concrete channels installed along the long sides of the pitch.

What makes the stratigraphic layout used for this type of pitch so innovative is that there was no need to excavate more than 3,500 m³ of soil from an area of new land and there was no need to add a large amount of raw aggregates



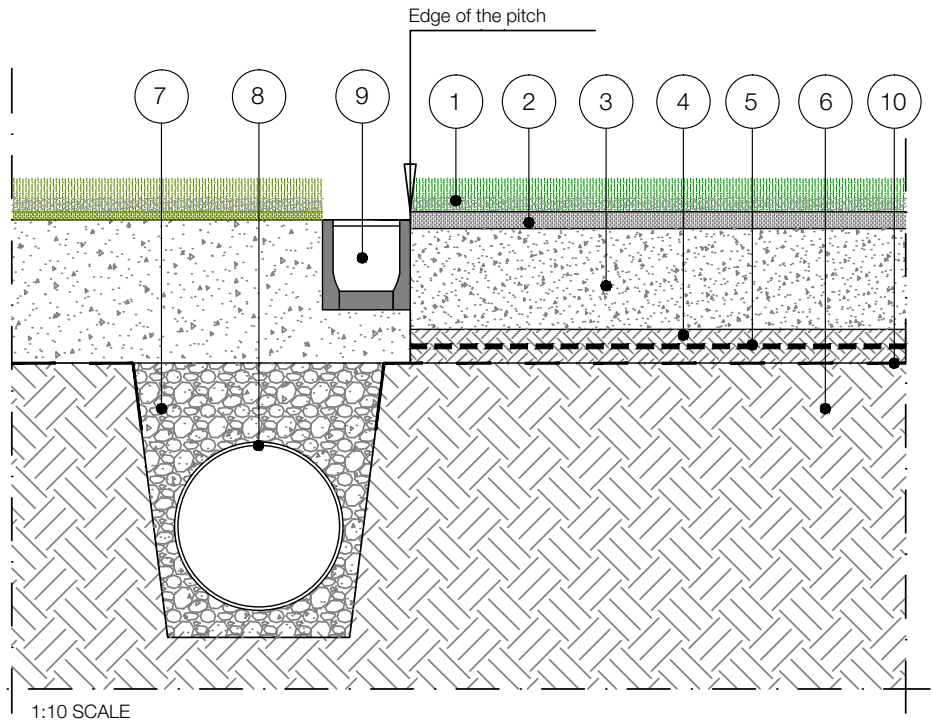
View from above: positioning the geofabric and geomesh



Applying the road base material

THE NEW SYNTHETIC GRASS PITCH

1. synthetic grass surface (thickness 50 mm)
2. SBR PENTADRAIN draining undermat
3. Road base material stabilised with MAPESOIL 100 - 15 cm
4. Road base material (thickness 5 cm)
5. MAC GRID bidirectional polypropylene geomesh.
6. Existing soil
7. Pipe bedding and backfill (gravel)
8. Ø 250 main drainage pipe running at 180°
9. Concrete channel running along the edge of the pitch connected to drains with class B125 gully-grate covers
10. Non-woven geofabric



or install a network of drainage pipes. An important factor to consider is that, if a traditional solution with vertical drainage had been adopted, it would have required more than 400 truck journeys going through the nearby city of Sassuolo to dispose of the topsoil and to bring freshly-excavated material from quarries to make the drainage layers. MAPESOIL technology, on the other

hand, in combination with the geomesh positioned at the bottom of the structure of the pitch, helped to greatly reduce the amount of excavation work and the amount of aggregates that would have been required, while at the same time increased the load-bearing capacity of the area where the intervention took place and improved the functionality of the playing surface.

Technological innovation at the service of the city of Sassuolo: the inhabitants of the city weren't even aware of the building site... for which they are truly grateful!

Elisa Portigliatti, Corporate Product Manager Sport Line, Mapei SpA



2



3

Spreading and mixing MAPESOIL 100

4

From roofs to coatings: complete product systems

The Mapei Football Center consists of a main building with two gymnasiums, physiotherapy rooms, a conference hall, offices, service areas and a car-park, while externally there are 6 football pitches, with the main pitch having its own spectator stand. Here is a brief summary of the products used.

■ **Waterproofing work** was carried out using MAPELASTIC two-compo-

nent, cementitious mortar. The other product used was PURTOP 1000 two-component, solvent-free pure polyurea membrane, which becomes waterproof as soon as it is applied, sets to light foot traffic immediately and has excellent crack-bridging properties.

■ The MAPEPLAN T line was used to **waterproof the roofs**. Made by Polyglass, a subsidiary of the Mapei Group,

MAPEPLAN T is a line of synthetic waterproofing membranes which, thanks to exclusive “multi-extrusion coating” technology, features high level of durability, excellent workability and good weldability.

In particular, a special “cool roof” cover with high solar reflectance was completed in the Center. It required the use of POLYVAP FIX and POLYVAP FIX AL vapour-proof elastomeric membranes,





A few images of the works at the Mapei Football Center: on top of the page, laying resin floors with MAPEFLOOR I 320 SL and, below, the installation of ceramic tiles with KERAFLEX MAXI S1.

PUR/PIR insulating panels, and MAPEPLAN T AF B_{ROOF} (t2) membrane bonded with MAPEPLAN ADS 100 and MAPEPLAN ADS 310 adhesives. The terraces were waterproofed with MAPEPLAN T B. All the waterproofing operations were completed by using accessories belonging to the MAPEPLAN T line.

■ **To waterproof the retaining walls** of the main building and the spectator stand, Polyglass products were used: POLYPRIMER HP 45 PROFESSIONAL bituminous primer, EASY LIFT plasto-styrene waterproofing membrane, POLYFOND KIT DRAIN protection and drainage system.

■ TOPCEM special hydraulic binder for normal setting, fast drying (4 days) screeds, TOPCEM PRONTO quick-drying mortars and MAPECRETE LI HARDENER consolidator were used to **make the screeds**.

■ ULTRATOP self-levelling mortar and ULTRATOP LOFT W fine-textured cementitious paste were used to make **cementitious floors** that are highly resistant to abrasion.

■ For the **internal floors**, the products used were MAPEFLOOR I 320 SL CONCEPT self-levelling epoxy coating with a coloured granular finish and MAPEFLOOR SYSTEM 32 multi-layered, solvent-free epoxy system for floors with good resistance to wear caused by wheeled vehicles. The MAPESILENT system (including MAPESILENT COMFORT, MAPESILENT BAND e MAPESILENT TAPE) ensured protection against the noise of footsteps.

■ **To install the ceramic tiles** in various areas, the products chosen were KERAFLEX MAXI S1 and ELASTOCOLOR adhesives and KERAPOXY and ULTRACOLOR PLUS grouts for joints.

■ The **internal walls** were treated with DURSILITE washable water-based paint for internal walls.

■ For the **drainage system for the pitch** the products used were MAPESOIL 100 stabilising agent and MAPESOIL VD hydraulic binder, as you can read in the previous article. Aggregates and MALTA VISTA mortar by VAGA (a Mapei Group's subsidiary) were also used for the sub-bases of the football pitches.

■ The MAPECOAT TNS RACE TRACK system was used to **coat the surfaces of the stands and the pedestrian areas**.

■ **Mosaic tiles** by Mosaico+, a subsidiary of the Mapei Group, were installed in the showers.

TECHNICAL DATA

Mapei Football Center, Ca' Marta, Sassuolo (Modena, Italy)

Period of intervention: 2017 - 2019

Client: U.S. Sassuolo Calcio SpA

DESIGN PHASES (PRELIMINARY, FINAL AND EXECUTIVE)

Architectural Design: Onsitestudio Srl

Design team: Angelo Lunati, Giancarlo Floridi, Design leader: Cesare Galligani, Paolo Volpetti, Marco Fancelli, Nicolò de Paoli, Veronica Lazzaro, Davide Macchi, Pietro Manazza and Michele Miserotti

Structural Design: Milan Ingegneria Srl: Maurizio Milan, Giovanni Molteni and Marco Lettieri

Plant systems design: Deerns Italia SpA: Giovanni Consonni, Giuseppe Dibari, Riccardo Diaferia, Davide Bonetto and Angelo Pollace

Landscape architecture: Studio Giorgetta Architetti Paesaggisti

Sports facilities consultants: Giovanni Castelli, Ermanno Rampinini (Mapei Sport) and Elisa Portigliatti (Mapei Group)

Consultant for executive design of external window fittings: Tecnon Consulting, Riccardo Morasso

LEED consultant: Politecnica Ingegneria e Architettura, Ferdinando Sarno

Photos and images: Andrea Romano (Mammulab) and Eugenio Matteazzi (Emaviz)

Scale models: Stefano Prina

CONSTRUCTION PHASES

Artistic direction: Onsitestudio Srl

Design team: Angelo Lunati, Giancarlo Floridi, Cesare Galligani and Paolo Volpetti

Works direction: Milan Ingegneria Srl, Maurizio Milan and Sergio Ferrero

Plant systems works direction: United Consulting, Stefano Colombo, Eduardo Nieves and Diego Nebiolo

Fire prevention: Politecnica Ingegneria e Architettura, Massimo Cavazzuti

LEED consultant: Politecnica Ingegneria e Architettura, Ferdinando Sarno

General contractor: Colombo Costruzioni SpA

Project management: Elena Beretta, Massimo Seregni (Mapei SpA)

MAPEI PRODUCTS

Dursilite, Mapecrete LI Hardener, Mapefloor I 320 SL Concept, Mapefloor System 32, Keraflex Maxi S1, Kerapoxy, Mapelast, Mapesoil 100, Mapesoil VD, Purtop 1000, Topcem, Topcem Pronto, Ultratop, Ultratop Loft W, Idrostop, Mapesilent system, Mapecoat TNS Protection system

POLYGLASS PRODUCTS

Easy Lift, Mapeplan Metal Bar, Mapeplan ADS 100, Mapeplan ADS 310, Mapeplan TB, Mapeplan T AF B_{ROOF} (t2), Mapeplan Sealant Kit, Polyprimer HP 45 Professional, Polydren PP, Plana P, Polyfond Kit Drain, Polyvap Fix, Polyvap Fix AL, X-Therm

For further information see www.mapei.com and www.polyglass.com

FRANCESCO CAPUTO: “Forwards together”

THE CENTRE FORWARD IS ONE THE OF THE CLUB'S
NEW SIGNING FOR THE 2019-20 SEASON

Sassuolo's forward line has another top striker. His name is Francesco Caputo, aged 32, and he was signed from Empoli. Over the last few seasons he has been one of the most prolific strikers in Italian professional football. Caputo was the leading goal scorer in the Italian Serie B in the 2017-18 season, scoring 26 goals. Last season in Serie A he scored 16 goals, a great record considering he was not playing for a team with one of the best midfields or forward lines in the league. He was playing for Empoli, a team which, unfortunately, was relegated at the end the season.

“I would like to thank Empoli for the wonderful time I had at the club, but now I am happy to be part of Sassuolo”, so Francesco told us. He actually made his debut in the Italian Serie A playing for Bari in an away game against Genoa on 3rd October 2010. “Sassuolo - so Caputo went on to say - made a great impression on me straight away; it is a club that leaves nothing to chance. I was really impressed when I entered the new Mapei Football Center we use for training: it is definitely one of the best and most functional in Italy and is further proof that I have joined an important club”.

Francesco, how would you describe yourself technically?

“I am a centre forward, a position I have always played but I can adapt to different types of team formation. I can play in a more fluid position or right in the centre of the attack. I know that certain great centre forwards, including Paolo Rossi, played out on the right wing for short periods but I have always played down the middle”.

Many great players have a favourite foot. Boninsegna and Riva, for example, often scored with their



Francesco Caputo at a press conference holding a Sassuolo shirt.

left foot. Do you have a favorite foot?

“I can shoot with both feet, although I score most of my goals with my right foot. I think my distinctive trait is not so much the foot I score with but my coolness, I do not get overexcited or panic when I need to put the ball in the back of the net, and I do not just shoot randomly. Coolness is a quality many people see in me”.

Who did you try and play like when you were a kid?

“I have always tried to copy Pippo Inzaghi's playing style. Pippo was a lethal and unpredictable centre forward, who could create goals out of nothing. The professional I have always tried to copy was Alessandro Del Piero, I admired the way he carried himself both on and off the pitch, not to mention his skill and the way he played”.

Francesco, you played in the Italian Serie B from January 2011 to June 2018, scoring plenty of goals every season. Do you have any regrets?

“I have no regrets about the past, I just look forward with confidence to the future and never give up. One of the reasons I decided to play for Sassuolo is to take part in a European competition in the relatively near future. I have scored plenty of goals throughout my career, but I have never played in the Europa League or Champions League: it would be great if I could do that with Sassuolo. I hope to score plenty of goals for the team this season, so that Sassuolo can qualify for the Europa League”.

Great players from the past have been the leading goal scorers in both the Serie A and Serie B.



Francesco Caputo training at the Mapei Football Center in Sassuolo.

So far you have been leading goal scorer in the Serie B. Do you think you can be one of those very few who have been top scorer in both divisions?

"I am not excluding anything. Being the league's leading goal scorer again is a very important ambition I have".

Italy's team manager, Roberto Mancini, has often played Quagliarella, who was born in 1983, up front recently. Does that give you reason to be hopeful, bearing in mind that you are four years younger than Quagliarella? Do you think you are in the running to be selected to play for Italy?

"Winning a cup is not a question of age but of performance, and it is how you perform out on the pitch that really

counts. I am pleased with my professional career so far and I am sure that if I keep on playing well and score plenty of goals Mancini will take me into consideration, as has recently been the case with Quagliarella, who is a great player".

Your team manager at Empoli was Andreazzoli, who really helped you develop. Now you are being coached by De Zerbi. What is the difference between the two men?

"They are both excellent team managers. De Zerbi focuses more on details, almost excessively".

As well as Caputo, Sassuolo has also signed the midfielder Hamed Junior Traorè (a native of the Ivory Coast) from Empoli. During this first stage of the transfer market, the club has also signed the midfielder Marco Sala (previously on loan to Arezzo) and the big central defender Andrew Gravillon, a French player from Guadeloupe. The right full-back, Jeremy Tolian, who has dual German and American citizenship, has also joined the club from Borussia Dortmund.

A promotional poster for U.S. Sassuolo's 2019-2020 season ticket campaign. The poster features a central shield-shaped collage of images including players, fans, and the Mapei Football Center. The text "U.S. SASSUOLO" is prominently displayed in a green banner across the collage. Below the collage, a large green banner reads "WE ARE SASSUOLO" and "SEASON TICKET CAMPAIGN 2019-2020". The top left corner shows the Serie A logo, and the top right corner shows the club crest. The bottom left corner features the Mapei logo, the bottom center has the website "www.sassuolocalcio.it", and the bottom right corner has the Kappa logo.

UEFA EURO UNDER 21: MAPEI ST



SASSUOLO-MAPEI: A WINNING COMBINATION IN SUPPORTING UEFA

Mapei Stadium in Reggio Emilia (Central Italy) hosts major events and recently staged four matches during the UEFA European Under 21 Football Championship. "Thanks to Mapei Stadium and the people who manage it – so Andrea Stefani announced, UEFA's project leader for the 2019 European Championship - we put on a great show". Back in 2016 UEFA selected Italy to host the European Championship. As Mr Stefani then went on to say: "Italy's bid included Mapei Stadium as one of the grounds for holding the tournament. The bid was immediately accepted in light of the successful hosting of the final of the 2016 Women's Champions League at this stadium".

Mr Stefani, did UEFA ask for any special facilities to be provided?

"We made it clear that we needed a more comfortable press stand, a new and bigger pressroom, and a new conference

area mainly for holding interviews. The owners of Mapei Stadium provided everything we needed with great expediency and punctuality, making their stadium even better. It is also true that being chosen to help organise the European Championship helped attract government financing to improve the stadiums where the games were to be played, but, in any case, the combination of Mapei and Sassuolo Calcio showed outstanding initiative and a real desire to keep on improving. Mapei Stadium was already a great facility but hosting the European Championship provided the chance to make some minor improvements, so that it is now a magnificent structure with great international prospects".

Were the small gates at Mapei Stadium for the Poland-Belgium and Spain-Belgium matches, mainly due to the fact that Italians only

ANDREA STEFANI IS UEFA PROJECT LEADER



Andrea Stefani, aged 49, was UEFA's project leader for organising the 2019

European Under

21 Championship. Formerly an international linesman, he was also part of the refereeing team (together with Nicola Rizzoli) in charge of the 2014 FIFA World Cup final in Brazil when Germany beat Argentina 1-0. Andrea Stefani is now Rizzoli's assistant on the board for appointing referees for Italian Serie A matches.

TADIUM TAKES CENTRE STAGE



really support their own team and are not interested in going to the stadium unless Italy is playing?

"That is not entirely true, but the figures for the UEFA Under 21 Championship are quite clear. A total of 21 matches were played in Friuli Venezia Giulia (Northern Italy), San Marino and Emilia Romagna (Central Italy) during the finals and Italy only took part in three of these games, since it failed to qualify for the semi-finals. Despite the fact Italy was not involved in 18 of the games, the average attendance for the 21 matches was 12,000. Unfortunately, it cannot be denied that, locally, people did not realise the importance of the European Championship. Nevertheless, Mapei and Sassuolo Calcio worked wonderfully with UEFA".

Of the four UEFA European Under 21 Championship matches played in Reggio Emilia, Belgium-Italy was obviously the main attraction. Are you just pleased with the match result or is there anything else to be proud about?

"The Italian fans out on the terraces for the Belgium-Italy match won before the match began. The Italian fans applauded and waved their flags while the Belgian national anthem was being played, showing the utmost respect. The same thing happened when the Italian team played in Bologna. We are so used to hearing whistles or idiotic chants while the opposing team's national anthem is being played, so this made a wonderful change. The fans' applause during both

teams' national anthems is what I will remember most fondly about the 2019 European Championship".

The President of the Emilia Romagna Region, Stefano Bonaccini, has claimed on more than one occasion that hosting the European Championships filled the local coffers with at least 30 million Euros, mainly due to the influx of tourists. Do you agree?

"I have not personally studied this matter, but I believe these claims are made on solid grounds. I am certainly not surprised but I am extremely proud. Unfortunately, there are still some executives and administrators who have not yet fully realised the importance of major sports events in promoting local regions".

For almost 3 years you worked in close partnership with Alessandro Costacurta, President of the local organising committee for the UEFA European Championship. Did Costacurta, who made such a great impact on European football playing for AC Milan, just have an "honorary" role or was he actively involved?

"Mr Costacurta is a great person. He was very much involved and really pulled up his sleeves when the time came. He carried out his coordinating role perfectly and was quick to point out any problems that needed to be dealt with. Costacurta deserves high marks for his contribution".

OPPOSITE PAGE. The crowd inside the Mapei stadium for the Belgium-Italy match.

ABOVE. Left, the mascots for the Belgium-Italy match and, right, Federico Chiesa in action.

20,949 FANS TURN OUT TO WATCH BELGIUM-ITALY

Mapei Stadium in Reggio Emilia (Central Italy) hosted four matches during the finals of the European Under 21 Championship. Three Group A matches were held at the ground.

The first UEFA Under 21 Championship 2019 match held in Reggio Emilia saw Poland beat Belgium 3-2 in front of a crowd of 4768.

The second match at Mapei Stadium was a 2-1 win for Spain against Belgium with a gate of 4647.

Of course, the highest turnout was for the third match when Italy beat Belgium 3-1; 20,949 came to watch the match, the same kind of gate Sassuolo gets for its home matches against the biggest clubs in the Italian Serie A Championship. The Mapei Stadium crowd really got behind team manager Di Biagio's Italian team, cheering them on to victory.

Reggio Emilia also hosted the semi-final between Spain and France. A crowd of 9164 watched Spain win 4-1 to reach the final, going on to beat Germany 2-1 in Udine (Northern Italy).

VILLA D'ESTE GOLF CLUB HOSTED THE 2ND EDITION OF A TOURNAMENT INVOLVING PLENTY OF MAPEI CUSTOMERS AND GOLFER FRIENDS



Golf in Villa D'Este

As is now traditional for Mapei, sport provides the simplest and most effective means of conveying its corporate values. On 2nd June, Villa d'Este Golf Club in Montorfano (near Como, Northern Italy) hosted the second edition of the "Mapei Trophy" with over 120 players taking part, including customers, business partners, designers and golfer friends specially invited by the company.

On a wave of enthusiasm for a sport that is becoming increasingly popular around the world every year both in terms

of the number of players and fans, Mapei also supports this sport that really is for all people of all ages.

Obviously, age affects performance but the handicap system and possibility of moving the tees forward for senior players (making the holes shorter) allows everybody to remain competitive and compete on an even standing.

The team spirit and healthy competitiveness characterising the company is perfectly embodied in golf, as could clearly be seen during the wonderful day's sport and friendship everybody enjoyed along the banks of Lake Como.



The final prize-giving ceremony for the players in the tournament (above) that the lawyer Laura Squinzi (right) also took part in.



THE TOURNAMENT AND WINNERS

Over the 90 years since it was first founded, many of the world's most famous golfers have come to Montorfano at least once, attracted by the beautiful course and clubhouse in Villa D'Este and an array of major sports/ society events. Many generations have come here, with everybody conforming to the "spirit of the game", tradition and sheer pleasure of this unique sport.

This magnificent natural setting, full of history and tradition, hosted the Mapei golf tournament that was played according to the Stableford scoring system in three different categories. Antonio Munafò won the first category with 38 points ahead of Antonio Marzetti, who came second with the same score. Igor Yarstev, in better form than ever, scored 43 points beating Simona Sangregorio who finished on 38.

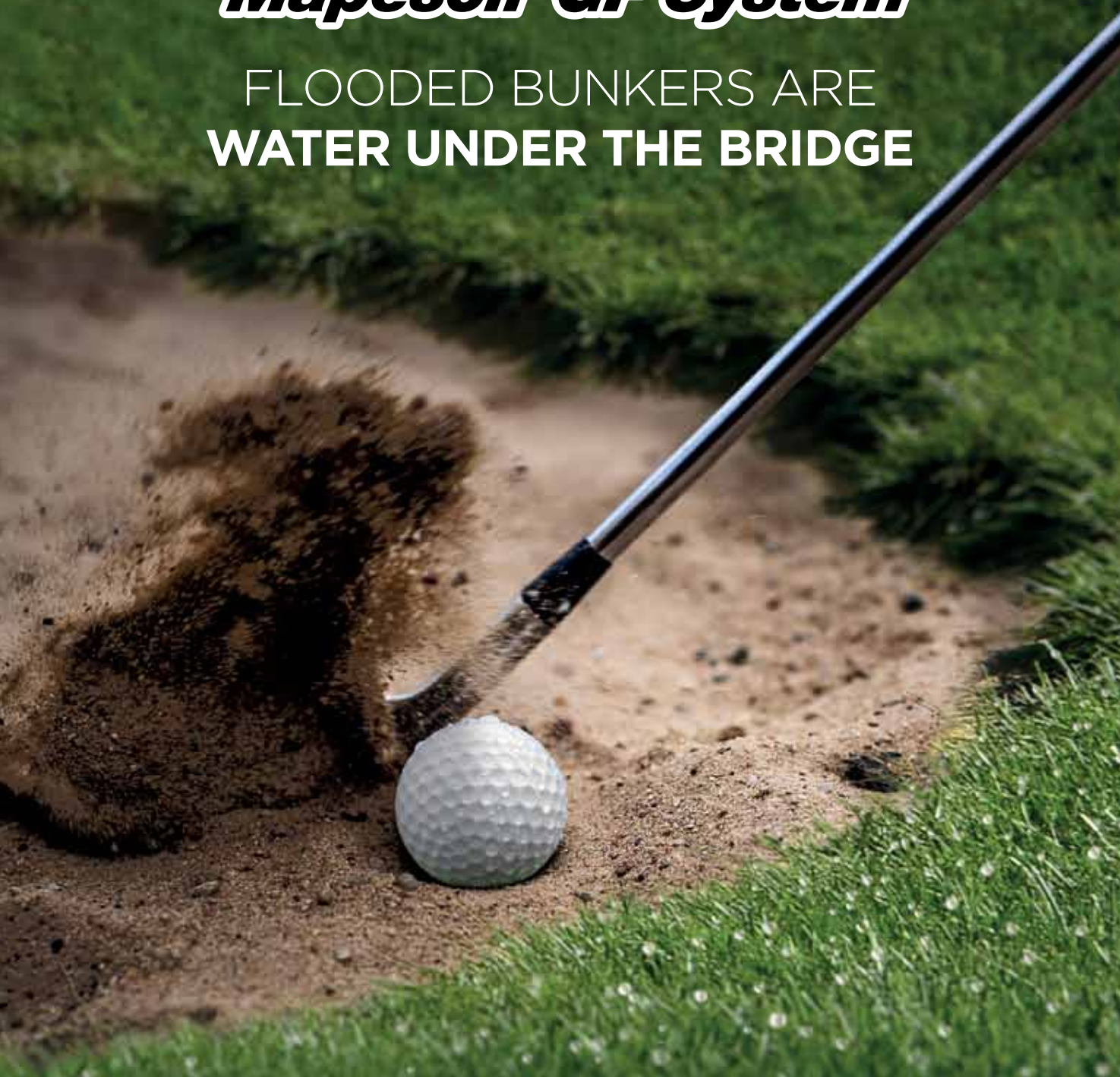
Angelo Abbà won the third category with 38 points ahead of Marta Fumagalli, who came second with 37.

Special prizes were awarded to Wilma Varrone, the leading lady with 37 points, and Francesco Agrati, who came first in the super senior category with 37 points.

The day drew to a close with the prize-giving ceremony out on the terrace followed by a cocktail party in honour of the winners and everybody involved.

Mapesoil® GF System

FLOODED BUNKERS ARE
WATER UNDER THE BRIDGE



Mapesoil GF is a system developed by Mapei to create bunkers and fairways with very high drainage capacity. So now, thanks to Mapei technology, golf-courses remain playable, even when the ground becomes heavy.



EVERYTHING'S OK WITH MAPEI

Learn more on mapei.com

 **MAPEI**
ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING



ReStelvio MAPEI 2019

A WINNING COMBINATION
FOR A CONTINUING
SUCCESS STORY



Sport is one of the pillars of the corporate philosophy that has been driving Mapei since it was originally founded and continues to be a vital factor in its way of understanding and practising sustainability.

Indeed, let's not forget that sport helps overcome differences, whether they be linguistic, religious, cultural or social and creates a favourable context for interaction and integration.

The same fair treatment that ought to be reserved for a certain animal that is repopulating the Italian mountains and

was chosen as the "mascot animal" for this year's edition of the event. Big and majestic, the authentic "King" of the woodlands, the brown bear was proudly displayed on all the official kits for Re Stelvio Mapei 2019. A symbol of the wonderful and mysterious beauty of the Alps and the deep roots associated with this event - organised by the Unione Sportiva Bormiese with Mapei acting as the main sponsor - which has now reached its 35th edition. It is also supported by the Mapei Sports Centre, which, as it has always done so in the

past, posted training plans for cyclists and runners on its website available to anybody interested in taking part in the event. Other sponsors of the event included Stelvio National Park, Banca Popolare di Sondrio, Pirovano (The University of Skiing), Colnago and QC Terme Bagni (Spa Resort) in Bormio. The event, which was held on 14th July, featured the traditional mountain climb from Bormio to Stelvio Pass. As usual, the event was filmed and broadcast several times by various TV channels (Bike Channel, Sky 214).

+ STELVIO × TUTTI





FRIENDSHIP AND SPORT UP IN THE MOUNTAINS

Sunday, 14th July 2019, was a sunny day, but the relatively cool temperatures made the climb less exhausting for all the competitors, who, starting at 8.50 am, set off from via Al Forte in their separate starting groups.

Braulio Valley went back to its roots as cyclists and runners climbed up the 40 hairpins, covered in sweat, breathing heavily from the sheer effort, puffing out

their cheeks and, in some cases, even cursing. Almost 3000 competitors took part (1350 of whom were Mapei guests). For 35 years now, the race has allowed participants to challenge themselves as they take on the 2758 m climb to the top of 'Her Majesty Stelvio Pass'. But Mapei's real contribution to the event is, without doubt, the friendly atmosphere that can be felt throughout the entire Re Stelvio Mapei weekend: from the volunteers to the tourist operators, everybody makes sure all the guests enjoy an unforgettable experience.



Robert Pozar, General Manager of Mapei d.o.o., Mapei's Slovenian subsidiary, taking on the tough climb for the ninth time.



A group of friends from Mapei Polska (Poland), who have taken part every year.



Lots of people from various Mapei subsidiaries took part in this year's event coming from Poland, Slovenia, Germany, Ukraine, and Austria.



A group from Mapei GmbH (Germany).



A group from Mapei GmbH (Austria) also took part in this year's Re Stelvio race led by their Marketing Manager Andrea Kapoun.



A member of Mapei Ukraine shows his delight as he crosses the finishing line.

The climb



The e-bike ride



“ALDO SASSI” MEMORIAL BIKE RIDE

What cyclist worthy of the name has not heard about, does not know about and, above all, has not dreamt of taking on the legendary challenge posed by Stelvio Pass. Tall and imposing, they call it “King Stelvio” and it is the highest mountain road pass in Europe, which, during the summer season only, connects Lombardy, Switzerland and Alto Adige (Northern Italy).

A legendary climb which attracts more and more fans every year, most of them taking part in the “Aldo Sassi Memorial Bike Ride” (an event dedicated to Aldo Sassi, the late Director of Mapei Sport); even though this is still a race,

more and more people are choosing to take part in a non-competitive basis. Among those taking on the 40 legendary hairpins - together with 957 clients and sports fans from all over Italy and the rest of the world – were members of the Italian men’s short track speed skating team together with their coach Nicola Rodigari. Moreno Gurini also took part, and, despite his handicap, he rode his special e-bike up the mountain using nothing but the strength in his arms.

The men’s race was won by Federico Zambelli in 1h20’47” ahead of Alex Andreola (1h21’40”) and Augusto Duzioni (1h23’12”). The women’s race was won by Concettina Alberti (1h43’11”) followed by Arianna Sighel (1h49’00”) and Ura Ka Mrak (1h53’24”).

RE STELVIO MAPEI

Riccardo Romani riding for Alta Valtellina Bike Club, won the 35th edition of the competitive bike race, which saw almost 3000 people enrolled in the cycling (standard or e-Bikes) and running races. Romani completed a perfect race, attacking his competitors in the final kilometer finishing 20” ahead of Stefano Bonanomi (Team MP Filtri) and 46” ahead of Mattia Gaffuri from Team Oliveto.

The women’s race was dominated by Giorgia Bandini from Team Passion Faentina, who won in a time of 1h23’58”. Second place went to Michela Morsini (TTS) in 1h31’57” followed by Susan Duplessis from Us Bormiese (1h32’50”).

FIDAL HALF MARATHON AND THE RUNNING EVENT

The FIDAL (Italian Athletics Federation) half marathon, entirely up hill, was won by Francesco Mascherpa (Azzurra Garbagnate) in a time of 1h35’48” ahead of Giuseppe Molteni (Atletica Desio), 1h37’32”, and Massimo Galliano (Rota Chiusana), 1h39’46”. The athlete from Valtellina Mery Ellen Herman (Gp Santi Nuova Olonio) won the women’s race in 2h’03’50”. Second place went to Nives Carobbio (Atletica Paratico), 2h04’17”, with Laura Brenna finishing third in 2h04’44”. The men’s non-competitive race was won by Gianni Colzada, 2h10’18”, with Marta Chmiela, 2h42’06”, winning the women’s event.



The finish line

The prize-giving ceremony



15TH MAPEI GOLF TROPHY

The Re Stelvio Mapei event also included the traditional golf tournament on La Fornace golf course at Bormio Golf Club. The 15th Mapei Golf Trophy used the 18-hole Stableford scoring system in two different categories.

This now traditional event held at Bormio Golf Club has grown over the years in terms of the number of people taking part. The 1st category gross score competition was won by Stefano Sotta with a total of 31 points, while Alberto Corvi won the 1st category net competition with 37 points. Here are the rest of the leading finishers: 2nd net in 1st cat. Ettore Viganò with 37 points, 1st net in 2nd cat. Nikolas Cantoni with 36 points, and 2nd net in 2nd cat. Federico Cera with 36 points.

1st Lady overall was Simona Sangregorio with 34 points, while the 1st Senior was Filippo Abbà with 36 points.

Among Mapei clients, 1st in the net competition was Santino Bellotti with 33 points with Lucio Omiccioli coming second also with 33 points.

1st Mapei Lady was Milena Porro with 33 points.

Finally, two other prizes were awarded in the nearest-to-the-pin and long drive



ABOVE. The group of prize-winners at the 15th edition of the Mapei Golf trophy held at Bormio Golf Club.

competitions.

The men's nearest-to-the-pin 1/10 was won by Ettore Viganò (0.81 m.) and ladies' event 4/13 went to Silvana Gazzola (1.31 m.)

The longest drive (hole 3/12) was won by Davide Gasperi with a distance of 246 m.

Golf

3,000
PARTICIPANTS

2,758
M CLIMB



#LONG-DISTANCE CYCLING "Maratona delle Dolomiti", over 9.000 cyclists

Mapei Sport has been sponsoring the "Maratona delle Dolomiti" long-distance cycle race for many years. Over 9000 amateur cyclists usually take part in this event, including lots of foreigners. This year's race began and finished in Corvara in Val Badia (Northern Italy). As usual there were lots of VIPs amongst the cyclists. The cyclists taking part could choose between three different routes, all extremely tough and spectacular, riding up slopes that are often part of the "big stages" in the Tour of Italy. The 138-kilometre long-distance race was won by Tommaso Elettrico, a recently selected testimonial for Colnago. Elettrico, who has won many races, crossed the line first for his fourth victory in the "Maratona delle Dolomiti". The 138 km women's race was won by Christina Raush. The "middle-distance" races (106 km) were won by Stefano Stagni and Jessica Leonardi; the shortest races (55 km) were won by Davide Corvolo and Alexia Runggaldier.

The winner of Maratona delle Dolomiti 2019, Tommaso Elettrico



#SUMMER VOLLEYBALL TOUR MAPEI SPONSORS THE ITALY CUP, SUPER CUP AND CHAMPIONSHIP

Mapei sponsored the 2019 women's Summer Tour of the Italian Volleyball League. The Tour is a combination of the three main beach volleyball tournaments in Italy for teams of four players: i.e. Italy Cup, Italian Super Cup and Italian Championship. The volleyball players provided plenty of entertainment at three internationally renowned beach resorts with the Mapei brand clearly on display.

The Italian television channel Italia 2 gave women's summer volleyball plenty of coverage on TV. The event was also in the spotlight at sportmediaset.it and on video clips on the Women's Volleyball League's social media channels.

A huge audience of mainly young people watched the electrifying matches on the sand.

The first leg of the "Sand 4 per 4-summer Tour" was held in Vasto (central Italy) and counted as the Italy Cup with six teams taking part. P2P Smilers Baronissi beat Zambelli Brescia two sets to love in the final: 17-15 and 15-9.

The Italian Super Cup in Riccione was won by Saugella Monza, who beat

VBC-Apis Casalmaggiore two sets to one in the final. The team from Monza (northern Italy) beat clubs from Baronissi and San Giovanni in Marignano (Central Italy) in the group stage and the "lionesses" of Zambelli Brescia in the semi-final.

The score in the final against Casalmaggiore was 15-10, 14-16, 15-13.

The beach volleyball 4-for-4 championship was held in Lignano Sabbiadoro in Friuli (Northern Italy). Zambelli Brescia won the most prestigious title beating the team from Casalmaggiore in a gripping and extremely tight final. The team from Cremona were out for revenge after finishing second in the Super Cup, but it was not to be.

Zambelli Brescia won by two sets to one: 17-15, 17-19, 15-7.

Serena Moneta was awarded the trophy for the MVP (Most Valuable Player) in the final. Busto Arsizio beat Monza 2-0 in the third-place final.

Baronissi and San Giovanni in Marignano also took part in the Italian Championship.

A SPECIAL ISSUE DEDICATED TO THE MAPEI CYCLING TEAM



This summer's issue of *Rouleur*, British cycling magazine, promises to be really special: the Mapei cycling jersey appears on the front cover. Great cyclists, who proudly wore the legendary cycling kit decorated with multi-coloured cubes, talk about Mapei cycling team's ten-year history, describing it as "the greatest team in modern cycling". The editor-in-chief of this British magazine (published for the first time in 2006 by the sports clothes manufacturer Rapha and then as part of Media Ltd), Andy McGrath, has interviewed Giorgio Squinzi (CEO of the Mapei Group), cyclists of the calibre of Paolo Bettini and Andrea Tafi, and members of the staff of a team that really left its mark on the history of cycling during the period from 1993 to 2002. The story, enhanced by some truly beautiful photographs, commemorates the team in perfect Rouleur style. The subjects looked at in this almost monographic issue include cycling's bad boy Nacer Bouhanni: is he really a bad boy or just misunderstood? Enjoy your reading at www.rouleur.cc.

CYCLING Ulissi is king of the "Tour of Slovenia"

Mapei d.o.o., the Group's Slovenian subsidiary, sponsored the Tour of Slovenia professional cycling race won by Diego Ulissi from Livorno (Italy). The sponsorship deal for this up-and-coming stage race involved banners and panels that received plenty of TV coverage over the five stages. The race was broadcast locally by the Slovenian national network. It was also shown on various other TV networks around the rest of the world. Eurosport broadcast the Tour live in the whole of Europe.

The German rider Pascal Ackermann won the first stage in a bunch sprint finish; next day saw the Slovenian rider Luka Mezgec win another bunch sprint and take the lead in the general classification. Ulissi won the third stage to take over the leader's jersey, while Giovanni Visconti and Giacomo Nizzolo won the final two stages. Ulissi, riding for UAE-Emirates, finished top of the general classification 22" ahead of Visconti with Aleksandr Vlasov coming third 25" behind the winner.



Mark Cavendish, one of the leading riders in the Tour of Slovenia.

FAREWELL TO A FRIEND Mapei remembers Fabrizio Fabbri

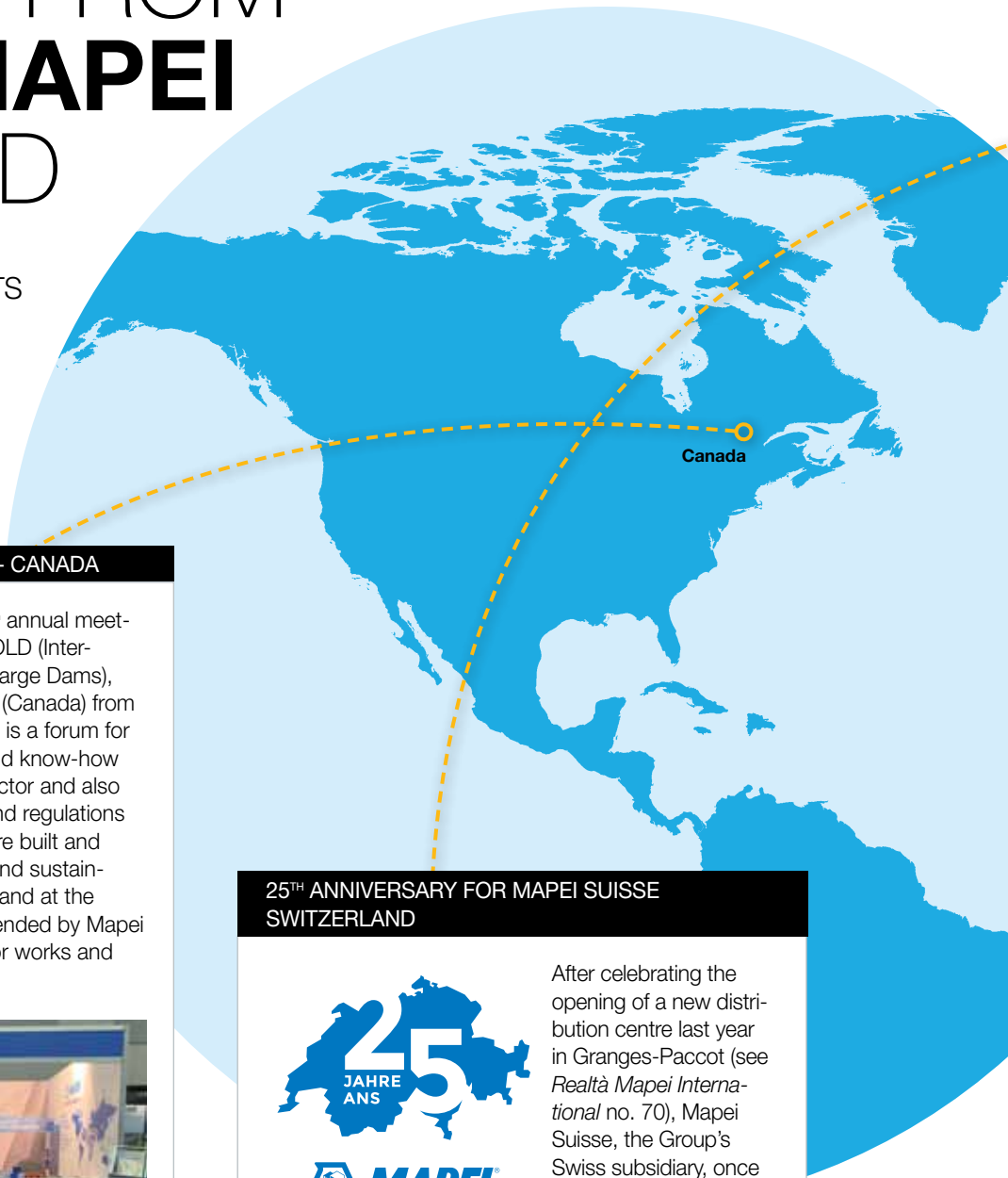


Fabrizio Fabbri (left), with Giorgio Squinzi (right) and Gianluca Bortolami.

He passed away very quietly in early June: Fabrizio Fabbri is no longer with us after succumbing to an incurable illness. He will be sorely missed by cycling fans and the world of Mapei. Fabrizio was born on 28th September 1948 in Ferrucia di Agliana in Tuscany (Italy); he leaves behind his wife Loretta and his sons Fabiano and Francesco. Unassuming, practical and loved by many, Fabrizio won 18 professional cycling races, including three stages in the Tour of Italy. After he retired from competitive cycling, Fabbri became one of the leading sports directors in the world of cycling and was in charge of the Mapei Professional Cycling Team from 18th May 1993. Fabrizio remained faithful to Mapei until the end of the 2002 season, the team's last season in professional cycling. Fabbri was behind the wheel of the Mapei team car in 1996 when it achieved a remarkable one-two-three in the Paris-Roubaix one-day race: Museeuw came first, Bortolami second and Tafi third. Fabbri played a crucial part in managing the Mapei team that won a total of 654 races over 10 years. Farewell Fabrizio, we will never forget you.

NEWS FROM THE **MAPEI** WORLD

EVENTS, TRADE
FAIRS AND PROJECTS
BY THE GROUP'S
SUBSIDIARIES



ICOLD 2019 IN OTTAWA - CANADA

Mapei took part in the 87th annual meeting and symposium of ICOLD (International Commission on Large Dams), which was held in Ottawa (Canada) from 9th to 14th June. This event is a forum for exchanging experience and know-how in the dam engineering sector and also helps set the guidelines and regulations for dams to ensure they are built and operate safely, efficiently and sustainably. Mapei had its own stand at the event, which was also attended by Mapei experts in the field of major works and technology for concrete.



25TH ANNIVERSARY FOR MAPEI SUISSE SWITZERLAND



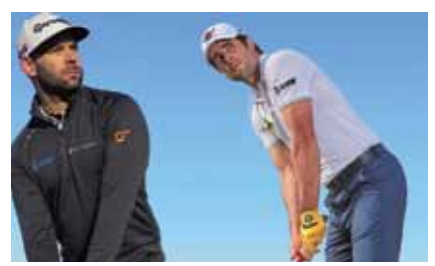
After celebrating the opening of a new distribution centre last year in Granges-Paccot (see *Realtà Mapei International* no. 70), Mapei Suisse, the Group's Swiss subsidiary, once again has reason to celebrate this year: on

28th June, business clients and partners were invited to attend a special event to celebrate the company's 25th year in business held at its headquarters in Sorens. 25 years of interesting work/business experience, such as the various operations the subsidiary has been involved in this year, including the launching of a new website, involvement in the Suisse Floor trade fair and the Swiss Tunnel Congress, the sponsorship of Gruyère Triathlon, and its contribution to numerous building operations, such as the International Olympic Committee Headquarters in Lausanne, Mistail Tunnel and Albula Tunnel.



2 GOLF VIPS FOR MAPEI UK UNITED KINGDOM

With the increasing popularity of golf in the United Kingdom, Mapei UK has set up a partnership with two VIP golfers: Adrian Otaegui and Chris Ryan. Spanish golfer Otaegui has recently broken into the World's Top 60 after playing on the PGA and European tours, and will be wearing the Mapei logo on his official golf gear during future challenges, including the US PGA tour. Ryan is the Director of Coaching at the HIT Golf Academy at the Forest of Arden Golf Club. With plenty of coaching experience, he currently stands as the golf coach with the fifth highest number of followers on YouTube. Mapei UK has been organising "Mapei UK Golf Days" for more than 15 years now, with events proving extremely popular with customers. Adrian Otaegui is expected to be taking part in some golf days for the remainder of 2019.



NEW FACILITIES FOR MAPEI NEDERLAND THE NETHERLANDS



Mapei has been operating in the Netherlands for ten years now, with a former office in Almelo and a warehouse in Apeldoorn. It took a "leap forward in terms of quality" on the 27th of May by incorporating all its facilities and spaces under one single roof: a new building in Apeldoorn that has 2750 m² of storage space and 680 m² of offices, a showroom and a training centre. The facility is just 500 m away from the A1 motorway connecting various strategic areas for the Dutch economy. Another rung up the ladder of internationalisation for the Mapei Group, which plans to meet all the local market's needs while reducing transport costs.

"2019 PRODUCT OF THE YEAR" AWARD GOES TO SOPRO – GERMANY

Every year the German specialist magazine "BaustoffMarkt" awards prizes for the best professional building products. The winners are chosen by an accredited panel of judges based along the lines of innovation, bestsellers, usefulness, price, sustainability and presentation at sales outlets. This year's first prize in the "Tiles Products" category went to Sopro GmbH (one of the Mapei Group's German subsidiaries) for its Wannendicht-System for waterproofing bathtubs and shower trays and was awarded on the 10th of April. Last January, the same system was also awarded the BAKA Bundesverbandes Altbaurenewerung prize for innovation.



MAPEI AND SUSTAINABILITY



INTERVIEW WITH MIKAELA DECIO, MAPEI ENVIRONMENTAL SUSTAINABILITY MANAGER

Alongside the three Mapei Group's pillars of internationalisation, specialisation and Research & Development, great attention has begun to be focused on ecological issues, the impact of products on the environment and health, and emissions into the air. In a nutshell, the question of environmental sustainability. "We have been studying volatile organic compounds (VOC) for about 20 years – so Mikaela Decio pointed out. – Our job is to study the distinctive traits of our products in terms of their healthiness, subsequently subjecting them to laboratory testing carried out by third parties so as to be awarded low-emission certifications, such as EMICODE issued by GEV, the German association for controlling emissions of building products that Mapei has been part of since 2005".

Thanks partly to receiving government financing in 2013 by the Italian Ministry of the Environment aimed at studying the carbon footprint of products, since 2015 Mapei has had the tools and expertise required to measure the environmental impacts of its products throughout their whole life cycle.

This allowed to set up a department within the Mapei organisation (with Marco Mazzetti and Laura Carettoni working with Mikaela Decio), which performs life cycle assessments of its products and releases environmental product declarations (EPDs).

"My colleagues and I – so Decio added – take part in workgroups dealing with the eco-sustainability certification of buildings, LEED and BREEAM in particular. Mapei is a member of the Green Building Council Italia (the Italian branch of the Green Building Council) and, personally speaking, I am a member of the Board. This has positive repercussions on my work and, more generally speaking, on the company, because LEED ratings

require compliance to various environmental parameters for the systems and products used in the building process. And we here at Mapei must be part of this process, which is now at the very cutting-edge of modern building".

So, what does it mean to study the sustainability of chemical products?

"It means going about our various activities – so Ms. Decio went on to say - looking after the health and safety of installers and end consumers, ensuring more comfortable living conditions for people, minimising environmental impact during product manufacturing, packing, usage and disposal and, lastly, ensuring the sustainability of the buildings in which certain products are used, reducing their environmental impact".

An indispensable driver in achieving the company's goals in terms of sustainability is Research & Development activities, one of the operations the company is most proud of (70% of Mapei's research is focused on developing eco-sustainable products). Research which, over the years, has worked along a combination of two different lines aimed at protecting

people and making them more comfortable in indoor settings, while maintaining quality and durability standards: the gradual elimination of hazardous substances contained in products (Substances of Very High Concern, SVHC) and reducing the amount of substances emitted by these products during installation and use (VOCs).

Working along these lines, Mapei has gradually emitted the use of solvents in its own products, such as adhesives for resilient materials, replacing them with water-based formulations.

It has also developed products containing no substances of very high concern (SVHC), as defined in the European Union's REACH (Registration, Evaluation, Authorisation of Chemicals) regulations.

For Mapei safeguarding health and environment means manufacturing products with low emissions of dust during both mixing and use (Mapei Low Dust technology), extremely low emissions of volatile organic compounds, and low emissions of bad odours.

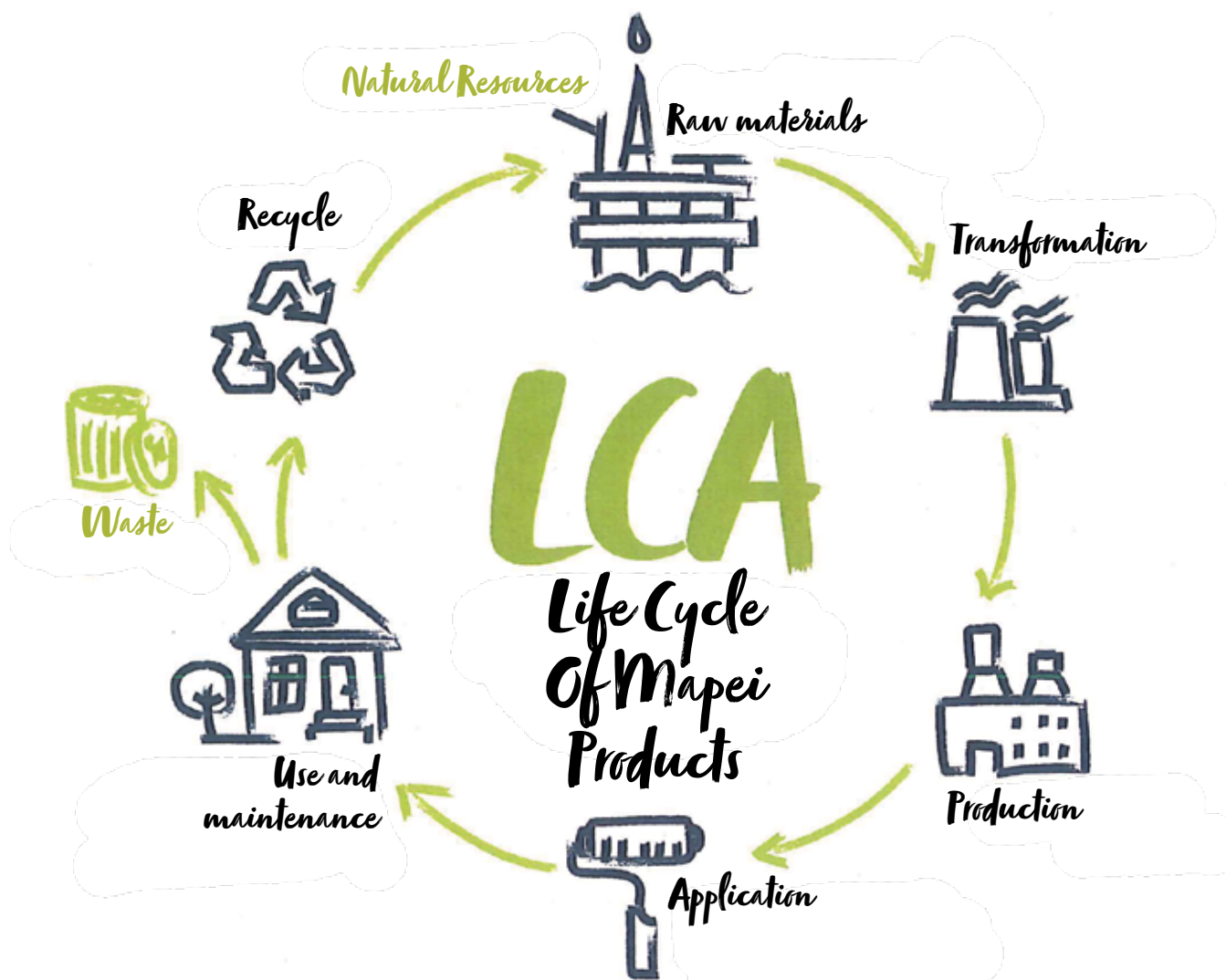
To protect indoor environments and prevent the spreading of radon, Mapei has

WHEN IS A MAPEI PRODUCT SUSTAINABLE?

The key aspects of a sustainable product for Mapei are:

- Guaranteeing the health and safety of installers and end users and comfortable living conditions for people
- Minimising environmental impacts during the whole life cycle of the product
- The product is able to contribute to green ratings for eco-sustainable buildings such as LEED, BREEAM and WELL; it features high quality and durability, low VOC emissions; contains recycled materials.

For further information: sustainability@mapei.it



developed a range of self-adhesive bituminous membranes (MAPETHENE) and a range of bituminous emulsions (PLAS-TIMUL) to waterproof concrete, brick and block-built foundations, cellars and underground garages.

To protect the environment against radon gas and methane gas, Mapei has recently developed MAPEPROOF FBT, a synthetic membrane, laminated with a non-woven polypropylene fabric that fully bonds to underground structures.

In 2016 Mapei was certified by Certicality, a third-party body, for its process for the development of the Environmental Product Declarations (EPD).

Starting from 2016 Mapei released 41 specific EPDs, including one for thermal insulation materials.

By measuring the carbon footprint of its own products, Mapei started to join projects to compensate for any CO₂ emitted. This is the case with the cementitious ad-

hesive for ceramic tiles KERAFLEX MAXI S1 ZERO: the emission of greenhouse gases associated with its production in Italy is offset through the acquisition of environmental certified credits for a reforestation project.

Mapei also provides solutions to reduce energy consumption in buildings and increase the heat efficiency of indoor settings by means of thermal insulation systems (MAPETHERM) or products that help reduce urban heat islands due to their high solar reflectance (AQUAFLEX ROOF).

Since 2017 a new rating system, which is mandatory for all Green Public Procurements, has been introduced in Italy. Mapei products can also comply with the requirements described in these new criteria, based on the life cycle of the whole building.

In this respect, Mapei products in compliance with the standards set in the pro-

cedure contribute to the implementation of public projects.

Lastly, the Group's manufacturing plants: Mapei's most important manufacturing plants all over the world are certified for an environmental management system according to ISO 14001.

Designers interested in the sustainability of Mapei products can download LEED declarations about Mapei products by clicking on "LEED V4 Credits Calculator" in the MyMapei area of the website at www.mapei.it. By entering the project and choosing the product in question you will receive a LEED declaration of the product you have selected.

We would like to thank InfoBuild (www.infobuild.it), where this article written by Pietro Mezzi was first posted.

Kerapoxy CQ

THE BACTERIOSTATIC,
HIGH-PERFORMANCE EPOXY GROUT

Easy-to-use, anti-acid, easy-to-clean, with a **bacteriostatic** agent, two-component **epoxy filler**, ideal for grouting the joints of ceramic tiles and mosaics. The **BioBlock® technology** blocks the formation and growth of micro-organism in damp environments.



EVERYTHING'S **OK** WITH **MAPEI**



Epoxy grouts

MAIN CHARACTERISTICS AND APPLICATION FIELDS



What are the main characteristics of epoxy resin-based grouts?

Epoxy resin-based grouts are generally two-component products resistant to aggressive acids and are impermeable. Also, they are rigid and highly resistant to compression.

When should you use epoxy grouts?

For covering materials that will be in contact with acids, for example in the food and beverages industry: dairies, breweries and similar sectors, or even for worktops in domestic kitchens. In such cases, any food or acids that inevitably come into contact with the grout will not be able to attack it chemically and erode it.

Is it difficult to use resin-based products?

Not any more, no. A lot of progress has been made in the field of chemical products for the building industry and we are now able to produce two-component, epoxy resin-based grouts with a creamy consistency, which makes them much easier to use and clean off surfaces.

What are the most important steps when using epoxy grouts?

1. The two components that make up the grout must be mixed together thoroughly and completely. This operation needs to be carried out very carefully, if possible with an automatic mixer at low-speed, making sure the two components in the product are amalgamated correctly. We recommend you don't divide the components (that is, use only partial quantities of the two components), otherwise the product may not harden correctly, and its chemical characteristics could be affected.
2. Within a few minutes of filling the joints with product, the floor or wall covering must be cleaned with water.

In which cases should you not use resin-based grout?

There aren't any particular technical limitations to using it, but normally you shouldn't use epoxy resin for particularly porous tiles or stone. Why? Because the grout could be deposited in the pores of the material and you wouldn't be able to remove it.

So, when all's said and done, is resin grout better than cementitious grout?

No, the difference rather depends on each site's specific needs. If there is a risk of aggression from acids then we use resin, in all other situations cement has excellent performance properties.

The family of epoxy grouts made by Mapei is called KERAPOXY. Amongst these products, KERAPOXY CQ is used for joints 3 mm wide and above, while KERAPOXY DESIGN has been specifically developed for grouting mosaic with joints up to 3 mm wide.

These are highly reliable, technological products with high performance properties and the extra attention required during the preparation and cleaning phases is justified by the end result: quality and durability of the highest order.

Marco Albelice. Technical Services, Mapei SpA (Italy)



PRODUCTS IN THE SPOTLIGHT

A NEW LINE OF ENAMEL PAINTS, AN ADHESIVE FOR CERAMIC TILES AND A MORTAR FOR RENDERS



DURSILAC

DURSILAC is the new family of water-based enamel paints for internal and external surfaces based on innovative acrylic urethane resins, selected fillers and the finest pigments.

DURSILAC priming undercoats allow to solve the most critical situations in the preparation of metal (No Rust) or wooden (Base Filler) substrates, ensuring a perfect result.

DURSILAC enamel paints are easy and fast to use, do not cause unpleasant odours or harmful emissions and do not yellow.

They are available in three types of finish: Gloss, Satin and Matt, and they can be tinted with the ColorMap® system.

**ENAMEL PAINTS
FOR INTERIORS AND
EXTERIORS**



ULTRABOND ECO PU 2K

ULTRABOND ECO PU 2K is a two-component, solvent and water-free, adhesive with very low emission level of volatile organic compounds (EMICODE EC1 R Plus) used for bonding ceramic tiles, stone tiles and mosaics.

It features good workability; excellent durability and resistance to ageing; perfect adhesion to all types of substrate normally used in the building industry; high elasticity; may be applied on vertical surfaces without slumping and without allowing tiles to slip; suitable for users allergic to epoxy and epoxy-polyurethane products. The slip-resistance of the product complies with EN 12004 standards.

**INSTALLING CERAMIC
TILES AND STONE
MATERIALS**



MAPEWALL RENDER & STRENGTHEN

MAPEWALL RENDER & STRENGTHEN

MAPEWALL RENDER & STRENGTHEN is a ready-mixed, powdered transpirant rendering and masonry mortar with very low emission level of volatile organic compounds (EMICODE EC1 R Plus). It is used to make transpirant render for old stone, brick, tuff and mixed masonry, as well as "reinforced" render with metal or composite mesh and construction joints for consolidating, strengthening and renovating weak masonry. **MAPEWALL RENDER & STRENGTHEN**, combined with **MAPENET EM 30** and **MAPENET EM 40**, pre-impregnated, alkali-resistant, glass fibre meshes, is consistent with the approach defined in the guidelines for the qualification of FRCM (Fibre Reinforced Cementitious Matrix) systems.

**TRANSPIRANT AND
"REINFORCED" RENDERS**



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25th - 28th September
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PREVENTS DECAY,
OFTEN THE CAUSE OF ACCIDENTS



RESISTANT TO
THE HEAVIEST TRAFFIC



RESISTANT TO SEA
WATER



IN COMPLIANCE WITH
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In the ancient Romans had known about the innovative **Mapestone System** they would have used it straight away. Being expert road builders, they would have immediately recognised its superior installation efficiency and the added strength it provides for porphyry and interlocking stone labs. Created to guarantee **durability**, compared with conventional system it offers more resistance to freezing weather conditions, de-icing salts and sea salt. The intelligent choice to cut down on maintenance costs. **Time goes by but Mapestone remains!**

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Systems with unbeatable performance properties for waterproofing and installing all types of ceramic and stone floor and wall coverings **securely and definitively, without ever having to be worried about water!**



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