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70



ADRIANA SPAZZOLI.

Realtà Mapei International's
editor-in-chief

Dear readers,

You will get this issue of *Realtà Mapei International* when you return from your holidays, so that we can get ready for the end of the year, which we hope will see a powerful revival in the building industry.

Meanwhile, we decided to devote part of this issue to Mapei's international operations, particularly in countries like the United States, United Kingdom, Switzerland and, of course, Italy. Our overseas operations are reinforced by our presence at leading trade fairs in the industry, particularly Cersaie that focuses on ceramics, Marmomacc featuring the most innovative products for installing stone materials and Saie, where Mapei is involved with its line of structural strengthening systems.

We are constantly committed to sustainability and you will always find references to the most important projects and enterprises in this realm.

Enjoy your reading!

SAVE THE DATE

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



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An international presence
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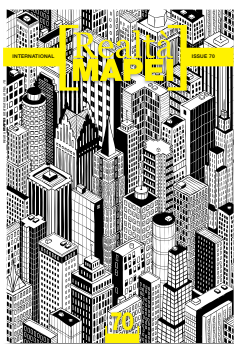
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COVER STORY
Skyscrapers in Manhattan.
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MAPEI IS RUNNING FASTER

The American GDP is growing at a record pace. In June, J.P. Morgan estimated the second quarter growth at 4% and the Congressional Budget Office is predicting a 3% growth for the year¹. This change is up from initial GDP forecasts of 2.7% to 2.8% for 2018². It is fair to say that the US economy is booming.

The US construction industry is forecast to grow along with the economy. According to the American Institute of Architects (AIA) Consensus Construction Forecast Panel³, nonresidential construction is projected to grow at 4% in 2018 and 3.9% in 2019. New residential construction is predicted to grow at a steady rate of 6% in both 2018 and 2019. It must also be noted, for our purposes, that home improvement spending is forecast to increase 5% from the 152 billion US dollars that American consumers spent in 2017⁴. Industrial construction should see an increase of 2.8% in 2018 and 5.2% in 2019, while commercial construction is predicted to

**MAPEI'S GROWTH RATE
IN NORTH AMERICA FOR
2018 HAS BEEN TWICE
AS STRONG AS THAT
OF THE US ECONOMY**



increase at 4.4% in 2018 and 2.9% in 2019. Institutional construction is also expected to grow, with predictions of 3.8% in 2018 and 4.3% in 2019⁵.

Unemployment numbers are down in the US and reports confirm that 40 states added construction jobs from November 2016 to November 2017, with 39 states increasing construction employment month-over-month. Many contracting firms have been adding jobs in response to regulatory reforms and in the run-up to tax reform. The corporate tax cut, along with other business tax benefits laid out in the final version of the tax reform bill, should prompt hiring to continue.

Just where the industry will find these new workers remains to be seen, given reports of a worsening labor shortage. This also presents a challenge for us in terms of hiring the right people. Mapei Corporation's (Mapei's main subsidiary in the USA and regional headquarters for North America) headcount as of May 31st was 1,334. In May 2017, we had 1,205.



THAN THE US ECONOMY

That is a growth of 129 new employees. Year to date turnover as of 5/31/18 was 7.41%, and a year ago it was 7.32%. We also project that at the current rate of talent acquisition and turnover, we will have an additional 160 employees in Mapei Corp. by 12/31/18.

8% GROWTH IN 2018

Mapei's growth overshadows the growth of the US economy and the US construction industry. In fact, Mapei North America's growth rate for 2018 has been twice as strong as that of the US economy. Mapei Corp. posted higher profits for the month of May 2018 on strong sales. Overall sales revenues rose 8% from the same period last year. Further, the company is on target for the period. Organic growth in sales coupled with an increase in year over year pricing were the primary driving forces for the growth in sales. In addition, the company's sales growth was driven by strong performances in its Retail and Wholesale sales

channels, up 15% and 7%, respectively. From a product line standpoint, the ceramic tile products line grew 11% and is up 5% over budget. In addition, the impact of the new Tax Reform Act of 2017 resulted in the company saving 1.3 million US dollars in tax expense.

In 2017, we said that in 2018 we were going to continue capitalizing on the strong growth that we were then experiencing. So far, 2018 is proving that prediction to be true. We are expanding with new facilities, new products, and new personnel to better reach our customers.

Part of that reach means physically expanding to new locations. The first of two new facilities added this year currently stands at 9,290 m² on 7,40 hectares in Wildwood, Florida. There are plans to expand the facility to 24,155 m² to accommodate multiple powder production lines. The facility will significantly increase product availability and services to customers in northern Florida, Georgia,

Alabama, Mississippi, and other surrounding states. The Wildwood acquisition also includes significant acreage for future expansion.

The second new location is a 19,509 m² building on 8,62 hectares in Calhoun, Georgia. This facility is currently operating as a working warehouse, but it will transition to become our new plant for manufacturing products for resilient flooring as well as other products. This location will be developed with the latest production equipment and will feature a state-of-the-art resilient and chemical development laboratory.

With these latest acquisitions, Mapei Corp. operates 18 plants and warehouses in the United States. This year, Mapei Corp.'s expansions of existing facilities included the addition of various new production lines. For powders, we added 2 lines in our West Chicago facility, 1 line in California, 2 lines in New Jersey, 1 line in Virginia, and 1 line in our Dalton (Georgia) facility. For polymers, we also added



1 vinyl polymer production line in the West Chicago facility.

These expansions are major investments to ensure that we are giving our customers the best service possible, and we will continue to expand our footprint in the Americas.

As we grow, our business opportunities do too, and we bring those opportunities to our customers. We are also becoming exclusive partners to our core wholesale customers, as well as having further expanded our relationships with key retail partners. Our sustained growth provides our customers with a sense of confidence.

An increased reach also helps drive product sales. Our product lines all reported gains in the first quarter of 2018.

STRONG PRODUCT AND DIVISION GROWTH

From 2017 to 2018, the core product lines saw a 7.7% gain, as sales across all product lines trended upwards. These gains mirror the trends in the construction industry. At our core, our continued drive and focus to develop innovative new products and expand the current company portfolio of products, is a key to our continued success. While our core business continues to provide strong growth, our ongoing expansion of products and product lines allows us to grow not only our current customer base, but also allows us to secure new business.

The concrete restoration systems (CRS) product line represents our biggest

ABOVE. A new location in Wildwood, Florida, will allow Mapei Corp. to better service several US states.

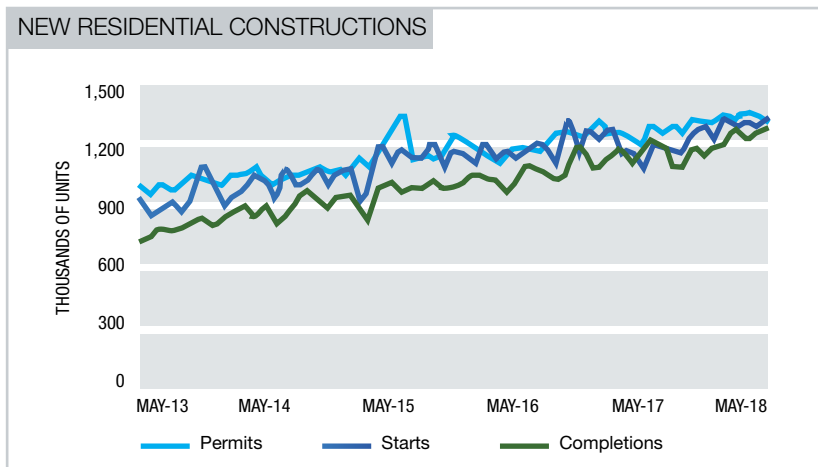
RIGHT. The new Mapei Corp.'s location in Calhoun, Georgia, is currently a warehouse, but will transition into a working manufacturing plant.

growth opportunity. The total production range for CRS is up, year over year, by 11%. The line continues to focus on product development and product optimizations. We have secured additional sales support, candidates, territories, and opportunities. One of our large ongoing projects is the restoration of the Philadelphia Metropolitan Opera House in Philadelphia, Pennsylvania. Constructed in 1908, it originally held 4,000 people and was the largest theater of its kind in the world. In 1910, it was sold to the Metropolitan Opera of New York City. The facility was used for five decades, until its vacancy in 1988. Mapei Corp. is at the forefront of the restoration of this incredible venue. Some of the products used are PLANITOP 15, PLANITOP X, and MAPEFER 1K. After repairs are completed, the exterior will be coated with ELASTOCOLOR TEXTURE, a heavily textured, high-build coating. Mapei Corp. R&D also assisted CRS on this high-profile project, by providing this newly developed wall coating. This is just one of the many projects we are currently involved in.

GRT (our US subsidiary devoted to the admixture line of product) saw very strong sales growth of 26.44% from 2017 to 2018 across all of their product offerings: admixtures, fibers, RE-CON ZERO, and grinding aids. The US admixture market is continuing to grow. GRT is experiencing this growth along with expansion into new regions such as the Southeast. The Southeast is seeing

U.S. NON-RESIDENTIAL CONSTRUCTIONS INVESTMENTS FORECAST FOR 2018-2019		
Investments in construction	Forecast % Change 2018	Forecast % Change 2019
Non-residential Total	4.0	3.9
Commercial Total	4.4	2.9
Office	4.6	3.0
Retail & Other Commercial	4.4	3.5
Hotel	4.1	0.8
Industrial Total	2.8	5.2
Institutional Total	3.8	4.3
Health	4.0	4.0
Education	4.0	4.9
Religious	-1.1	0.9
Public Safety	3.6	3.9
Amusement & Recreation	3.3	2.4

Source: Consensus Construction Forecast, AIA



Source: U.S. Census Bureau, HUD, June 19, 2018

excellent opportunities in residential, as well as the industrial markets, and continues to account for a high percentage of the cement consumption. The slow start to the construction season in the Midwest slowed the market slightly, but projects are now well underway in this region, and the projected 3% to 6% growth is being witnessed by existing GRT customers. The Texas area is stable and continues to be the single highest state in terms of cement and admixture consumption. The Northeast and Great Lakes regions are growing at a slower, but steady rate. GRT has strategically added new plants in Garland (Texas) and Logan (New Jersey) in order to capitalize on market opportunities and growing territories.

The Waterproofing division is gaining traction in a mature market but requires dedicated effort from the below-grade team. In those 12 months, the team has presented various American Institute of Architects (AIA) continuing education classes on below-grade waterproofing to 78 architectural firms. This means

that those architects and specifiers are correctly learning best-practices to apply waterproofing systems and will typically specify Mapei on future projects.

The Underground Technology Team (UTT) business is divided into two different market segments: civil (tunneling, geo-technical) and mining (hard rock, coal). Each segment requires equal focus and the goal is for each segment to contribute similar turn-over and returns. UTT has partnered with an applicator for our PVC membrane (MAPEPLAN TU line) and is focusing on waterproofing of underground structures. We have recently secured several large tunnel projects, including the Northeast Boundary Tunnel, Hartford CSO, Edmonton LRT, Purple Line, Regional Connector, and Doan Valley, establishing ourselves as a serious player in the North American market. These projects will account for over 5 million US dollars in sales over the next 18 months. We are expecting to grow, adding a number of team members, including additional sales personnel and support staff.

Mapei Corp. is also investing in localizing products to reduce lead times and costs and to give us more agility when it comes to servicing customers.

The Marine line debuted to a promising start in June of 2017. The main focus is concentrated on two main objectives: developing relationships and business connections in our local markets and localizing production of our Marine line offering. We will extend this business development plan to include yachts and Navy ships, as soon as the full Marine range of products is available in the US. While Mapei's European Marine division is more focused on the building of new ships, the American market is mainly focused on ship repairs. We are just at the beginning of our focused effort in the US Marine market, and we are excited about the potential it holds. We have currently established direct business relations with the most important players in the cruise market: Carnival Cruise Line, Disney Cruise Line, and Royal Caribbean Cruise Line, and are currently working to secure materials and supplies in preparation for their upcoming dry-dock repairs after the busy summer season.

Whether the product lines are new or proven, Mapei is successfully meeting market demands in a growing economy. Our operations are expanding to further our reach, service, and support, driving sales and opportunities. 2017 was our best year to date and it looks like 2018 is giving every indication of shattering those records.

Next year, 2019, will be even bigger, as the new facilities begin to come online, the new personnel are fully trained, and new products are introduced. We are on the way to being the biggest chemical company in North America.

¹<https://www.nationalreview.com/corner/four-percent-gdp-growth/>
²www.cnbc.com/2018/06/13/fed-raises-2018-outlook-for-us-economy.html
³www.aia.org/articles/173086-what-slowdown-pace-of-construction-activity
⁴www.nahb.org/en/news-and-publications/press-releases/2018/01/residential-remodeling-spending-trending-up.aspx
⁵www.constructconnect.com/blog/construction-news/2018-u-s-construction-prospects/

Luigi Di Geso. President and CEO, Mapei North America



The United States construction industry is picking up again

THE EFFECTS ON THE CERAMIC TILE INDUSTRY

In 2006, the new residential constructions sector in the United States was hit by its biggest decline since the Great Depression of the 1930's and the number of housing starts dropped from around 2.3 million units to around 550,000 individual living units. This 70% drop had an extremely negative effect on the supply chain and all related industries, such as furniture, refrigerators and other white goods and, above all, on construction materials such as bricks, cement, paints and ceramic tiles. The effect on the ceramic tiles sector was catastrophic and there was a drop in consumption from 308 million m² (3,315 million square feet) in 2006 to 182 million m² (1,959 million square feet) in 2009. The financial press provided various hypotheses about what had caused the collapse in the housing sector. But whatever the reason, because this sector had been performing steadily for almost fifteen years without a break, instead of its normal cycle of around seven years, this decline had a much more profound impact than normal. The housing sector goes through these cyclical phases because it takes several years to build new houses and the general euphoria around building companies means that, when demand for new houses does slow down, they find themselves with a surplus of unsold properties and construction work also needs to slow down.

It took a long time for the residential

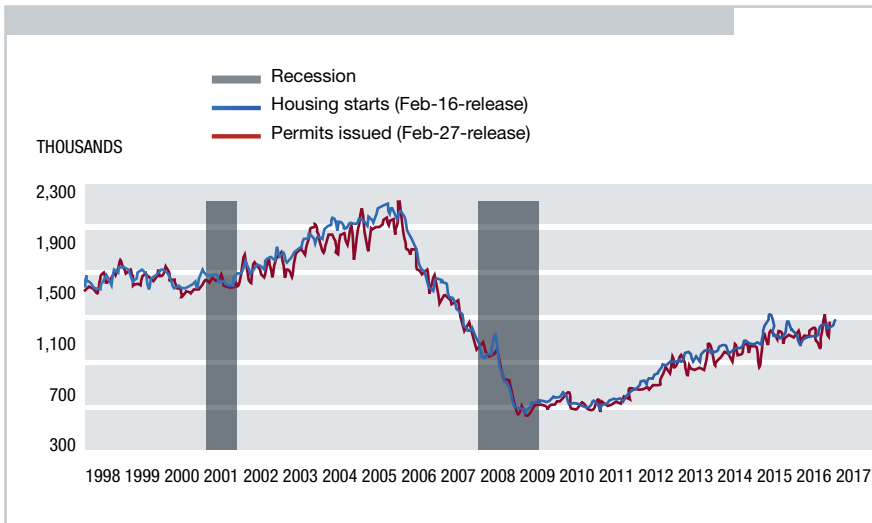


FIG 1. Housing starts in the USA in 1998-2016 (thousands of units). Source: Federal Reserve Bank of Dallas

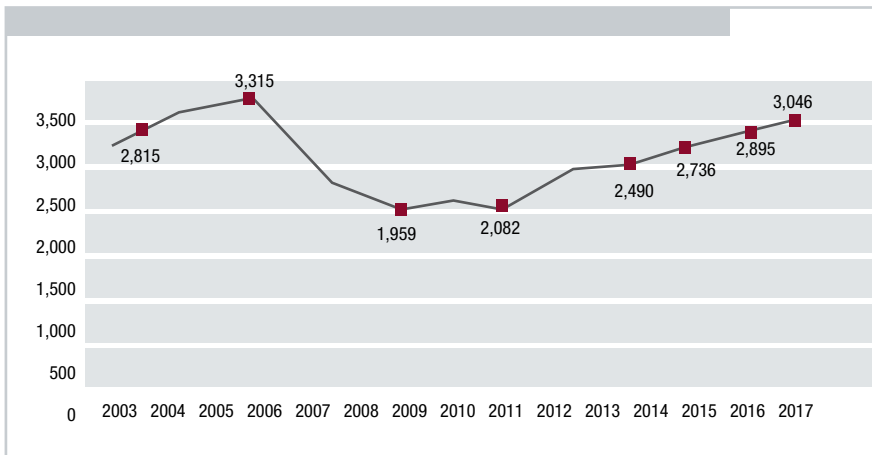


FIG 2. The consumption of ceramic tiles in the US (millions of square feet). Source: D.Grosser & Associates

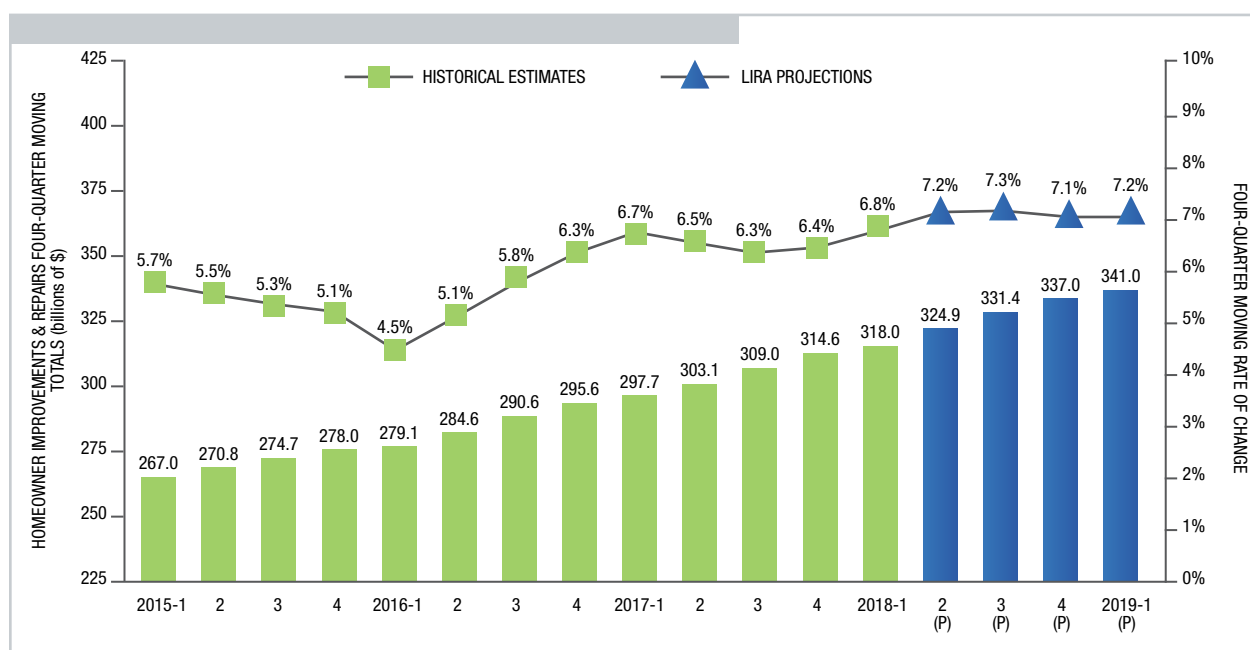


FIG 3. Leading indicator of remodelling activity – first quarter 2018. Source: Joint Center for Housing Studies.

building sector to start picking up again. In May, the seasonally adjusted figure for construction work rose to 1,309.5 billion dollars, an increase of 0.4% compared with April. In the first five months of 2018, the total amount spent on construction work amounted to 497.1 billion dollars, an increase of 4.4% compared with the first five months of 2017. Also, worth noting is that the rate of growth in residential constructions has been rather slow. Following the recession during the first decade or so of the 2000's, sector operators had become more cautious. In addition, there are also other contributing factors for the limited growth, such as the lower amount of building land available and, above all, the lower demand for housing from the younger generation, who do not have the same levels of income as the previous generation.

Another fact to take into consideration is that wages and salaries have only started to grow, albeit modestly, in the last two years after remaining stable since 2010. The drop of 40% in the consumption of ceramic tiles between 2006 and 2009 led to the closure of a considerable number of outlets, both distributors and retailers. As a result, the bigger distribution groups, such as MSI, Emser Tile and Bedrosians, and retailers, such as Home Depot and Lowe's, have increased their influence on the market. It is also clear that the ceramic tiles sector has become more mature and there are now more operators leaving the business than joining it.

AIRPORTS IN THE SPOTLIGHT

While the residential construction sector, which represents the most important market for the ceramics industry, is still making rather slow progress, it is worth noting that in the commercial construction segment there is a considerable amount of activity in the airports sector. Many American airports are on average 40 years old and substantial investments are required to renovate them. La Guardia Airport in New York, for example, was likened to something from the Third World by the former Vice President, Joe Biden. It is now a hive of activity and work is scheduled to continue until 2022. In the meantime, expansion work has been programmed for Denver Airport and work is ongoing to renovate San Francisco Airport. Overall, it is estimated that the total investment to renovate American airports will amount to 70 billion dollars.

GROWTH IN THE IMPROVEMENTS SECTOR

One market segment that is still growing and that seems to be particularly promising is the home improvements sector. The main indicators used to measure the level of activity suggest that home improvement work will continue to grow by more than 7% a year until at least the first quarter of 2019. These forecasts derive in part from the fact that, even though the number of newly built houses is lower, purchases of existing houses have returned to the levels prior to the recession.

Mobility amongst American families has also decreased and they are not changing house with the same frequency as in the past. And so, instead of buying a new house, it has become more economical to renovate the old one.

THE CERAMIC TILES SECTOR

The forecast for housing starts in 2018 is an increase of 3-4%, while for the ceramic tiles sector there is expected to be an increase in consumption of around 4%.

This increase could be even higher if it were not for competition from products such as vinyl tiles, which are of a much higher quality than in the past, and are being promoted through heavily funded advertising campaigns.

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

NEW RESIDENTIAL CONSTRUCTIONS (JUNE 2018)

BUILDING PERMITS
1,273,000

HOUSING STARTS
1,173,000

HOUSING COMPLETIONS
1,261,000

(Source: U.S. Census Bureau, HUD, July 18, 2018)

YAMA KARIM:
PRINCIPAL
ARCHITECT AT
STUDIO LIBESKIND,
NEW YORK



Looking ahead to the future, respecting the past

Yama Karim studied architecture at Columbia University in New York and at the University of California in Berkeley. After working at the Polshek Partnership design studio (now called Ennead Architects), he started collaborating with Daniel Libeskind in Berlin at the end of the 1990's and joined the Libeskind design studio in 2003. He has taught at the Swiss Federal Institute of Technology in Zurich and at the Pratt Institute of Brooklyn in New York and is currently working on the CityLife complex in Milan and the Corals residential complex in Keppel Bay, Singapore.

The CityLife project has been modified over the years. Can you tell us about the difficulties and processes that have influenced it? In general, how much does the execution phase contribute to giving a new form to the original idea?

It is inevitable that the original idea and the architect evolve with respect to the original idea; they have to allow themselves to be influenced by what the city itself transmits to the work. Architecture creates structures and new profiles for a city; it isn't an art exhibition.

It often takes 15 or even 20 years to go from the design phase to the completion of a building and in the meantime, there may be unforeseen events or an evolution in design. It becomes necessary, therefore, to carry out the modifications as they occur so that the project is always up to date.

As far as CityLife is concerned, with this project – and with many other large-scale projects such as Ground Zero – we have had to be very flexible. The complex has been built where the market required it and where there was demand. It is important to accept changes, treat them as opportunities and allow the project to transform. In the case of CityLife, I let the project come to life and then evolve rather than just design it and say “okay, it's done”. I am really satisfied not only with the overall result, but also with the enthusiasm of the people for the new shopping district and park. Including a metropolitan rail link has undoubtedly encouraged access to the shops and the success of the whole complex. The final result is really good and we can't wait to inaugurate the tower.

In large cities such as New York, Berlin and Milan, but also in smaller towns and cities, the issue of re-using and restoring historical buildings and reconvert large urban areas is quite a big problem. What is your opinion and how do you tackle this issue?

For us at Studio Libeskind this issue does not represent a problem. A lot of people feel very nostalgic about the past. We are firmly convinced that we need to preserve the past and our history, but we also believe that history is something alive that looks towards the future. For us, working on an historic building is the chance to bring it to life and introduce new features, to develop a new awareness of the characteristics of an ancient structure. Architects and the great community leaders of the past know this only too well and, guided by their vision, they have had to overcome cultural opposition in order to bring about change. This approach has been successfully adopted in a lot of cities: London, for example, is a city that has managed to look to the future starting from its historical sites.

The same thing has happened to Milan. I started working in Milan 14 years ago and, over the course of these years, the city has changed significantly. It has become a new city, in line with the times, with numerous modern structures. It makes me feel good to know that I have been a part of the city's transformation.

For the One Madison Avenue project in New York Studio Libeskind designed a 54-storey skyscraper with plants inside and with entire floors fitted out to create gardens by “eliminating” the external windows. Are you also a supporter of vertical gardens in cities?

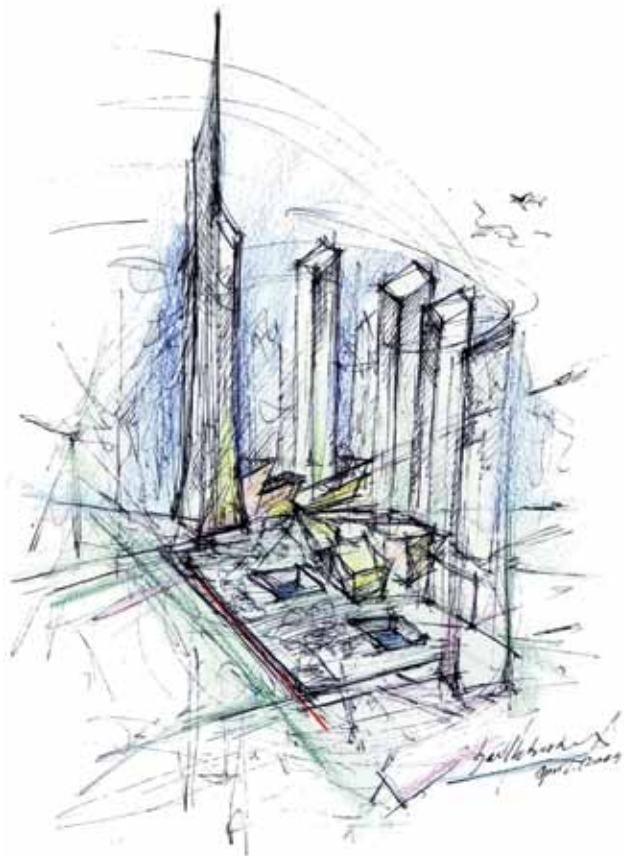
Yes, absolutely, I believe this has been a trend in sustainable development over the last 15-20 years. In the past we have seen that, even though cities have developed a new architectural identity, spatial planning has meant that development of the suburbs has also consumed swathes of territory and numerous resources and emptied the cities. We are against this approach. A new identity needs to generate new spaces, something we achieve by creating them inside buildings and by developing green areas vertically and taking them skywards.

Projects by Studio Libeskind have characterised the urban development of large cities such as Milan, London and New York. What future do you foresee for a complex, cutting-edge metropolis like New York?

Cities must look ahead; they do need to respect the past but they need to look to the future. One change that I can see on a general level is that we are using cars less and focusing more on public transport and connectivity. When we think about the cities of the future it is very important to take into account technological changes because everything changes, everything evolves. But the real key to the future of building is to pay more attention to public spaces.

If we want to talk about New York and what form that kind of city may have in the future, a good starting point would be the example of Ground Zero. A number of people have wondered how to design the new buildings for this area and what they should look like. For us, on the other hand, the challenge was, first and foremost, how to design the public spaces, and only after that the buildings around these public spaces, which are the real living parts of the city. I believe this is the direction we should take in the future and the inhabitants will become increasingly aware of how precious these spaces are: this is where the success of the cities of the future will be decided.

Going back to Ground Zero, we wanted our design to overcome the legacy of an enormous block of buildings that had been built at the end of the 1990's. Previously, after 5 or 6 o'clock in the afternoon, this area would have been completely empty. Now, it has become part of the life of the city with loads to offer, an area where people still work but where they can also spend their spare time.



The easiest and the most difficult question for an architect: how do you design a good building? And is there any difference between designing it in Europe and in the United States?

We are, first and foremost, promoters of sophisticated buildings which, at the same time, are safe with a high level of performance in terms of energy consumption and structural capacity. We can certainly talk about international style and similar technology they have in common. But each building has its own uniqueness, its own special story, which depend on the client, the people who live in it or use it, the area where it is built and its context.

As far as the differences between the USA and Europe are concerned, I'll give you an example. We built the same type of building in Germany and Italy. We used two completely different techniques to install the ceramic tiles and treat the joints. The materials were the same but the results, because they were in different contexts, were different.

How can architects contribute to improving the city?

Architecture has always had an influence on cities and on the way people live. Some buildings have an interesting background while others don't have much to say. We often overlook architecture or we look at it as just a nice piece of art, but I think that, in reality, it has quite an impact on the quality of life. Our physical surroundings have an influence on our mental and physical wellbeing and on people's behaviour, whether they are in groups or alone. This is why I believe that architecture will become an increasingly important asset from many different viewpoints, including economic, because creating suitable surroundings and settings can have an impact on the productivity and wellbeing of people.



WORLD OF CONCRETE

ADMIXTURES FOR CONCRETE AND COATINGS

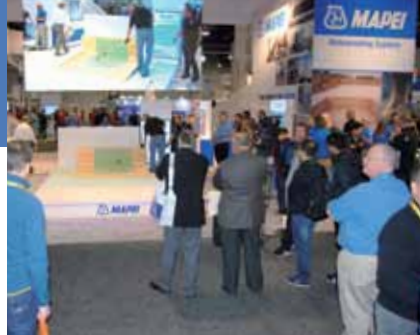
This year's World of Concrete (WOC) tradeshow saw the largest number of attendees in 9 years. The annual event brought together concrete and masonry industries from around the world totaling 1,567 exhibiting companies and 58,222 registered industry professionals. The Las Vegas Convention Center hosted the event from January 23rd to the 26th.

As in the previous year, Mapei Corporation joined with GRT, a U.S. subsidiary of the Mapei Group that manufactures admixtures for concrete, to create separate dedicated booths. The GRT booth introduced show visitors to the family of DYNAMON NRG products, specially developed admixtures for precast and prestressed concrete applications and concrete products.

The major attractions at Mapei Corporation's booth were the live demonstrations of the latest products for the concrete industry along with applied product samples of concrete coatings, admixtures, repair mortars and waterproofing membranes.

Mapei Corporation's staff introduced booth attendees to PLANISEAL CR1 waterproofing membrane, and PLANITOP 18 and PLANITOP 18 TG repair mortars. These products are available in the U.S. through Mapei Corporation.

The Mapei booth also highlighted the flexibility and versatility of ELASTOCOLOR coatings with a surprise performance by D. Westry, dubbed as "The World's Fastest Speed Painter." D. Westry is known for his rapid upside-down painting performances in which he flips the artwork upright to reveal a completed portrait, all within minutes. Onlookers were entertained by D. Westry's artistry as he created portraits of Michael Jackson, Marilyn Monroe, Frank Sinatra, Albert Einstein and more using ELASTOCOLOR PAINT. Four of the paintings were raffled off to booth visitors; while the other two portraits were gifted to Nick Di Tempo-



ABOVE. Again, this year, Mapei's popular booth hosted live product demos, special events, and lots of visitors.

At WOC 2018 Mapei Corp. supported the Concrete Cares' funds collection for pediatric cancer patients.

BELOW. ELASTOCOLOR coatings presentation was the most widely attended demonstration thanks to D. Westry's artistry.

ra, Honorary Chairman of the Board of Mapei Corporation, and Luigi Di Geso, President and CEO of Mapei operations in North America. The ELASTOCOLOR coatings presentation was the most widely attended demonstration.

The in-booth VIP event organized by Mapei Corporation was also a big crowd-pleaser: product videos streamed overhead while VIP guests enjoyed catered hors d'oeuvres and an open bar.

This year, Mapei Corporation also supported a profoundly life-changing cause. Concrete Cares is a charitable organization devoted to using the concrete industry to benefit the needs of families dealing with pediatric cancer. Mapei Corporation supported the event by donating two pallets of ULTRATOP and ULTRATOP PC concrete toppings plus pails of PLANI-BOND EBA bonding agent (the latter two products are distributed in the U.S. market by Mapei Corporation). Concrete Cares uses the WOC forum to support the Candlelighters Children's Foundation of Nevada and raised a record 50,000 U.S. dollars in donations for pediatric cancer patients. From education and solidarity opportunities to live product demos, Mapei capitalized on all aspects of the shows.

This article was taken from Realtà Mapei Americas, no. 26.

THE INTERNATIONAL SURFACE EVENT (TISE)

SOLUTIONS FOR SUBSTRATES AND COVERINGS

Composed of three world-class trade-shows (SURFACES, StonExpo/Marmomac, and TileExpo), The International Surface Event (TISE) is the industry marketplace for floor-covering, stone and ceramic tile industry professionals in the USA.

TISE 2018 (30th January-1st February) was a solid success for Mapei, which took part in this year's event as it did in the previous year through its U.S. subsidiary, Mapei Corporation. Newly designed applied product samples were a big draw for attendees: numerous examples of innovative solutions were shared with customers.

The Mapei Demo Team attracted a large number of TISE participants to its demonstrations. This year, the presentations included surface preparation and installation solutions for large-format ceramic tiles, such as the products PLANITOP 330 FAST and MAPEGUARD UM. Demonstrations of Mapei's resilient floor-covering installation system solutions for high-moisture concrete slabs highlighted new moisture-barrier products, including PLANISEAL PMB, PLANISEAL MSP and PLANIPREP MRS in combination with

ULTRABOND G15. The features and benefits of ULTRACOLOR PLUS FA and FLEXCOLOR CQ grouts were also in the spotlight.

Of great interest to visitors was the backlit mosaic and glass tile counter that lined the back of the demo stage. The joints had been grouted with MAPEI FLEXCOLOR 3D, and the backlighting of the tiles showed how the translucent grout changed colors with the change in lighting. Completing the beauty of the backlit tiles was the new MAPESIL 3D sealant. All products shown at the show are available in the U.S. through Mapei Corporation.

Mapei Corporation also played an important role in the conference presentations at TISE. The U.S. subsidiary's Technical Services Director, Dan Marvin, presented at a combination lecture/workshop on gauged thin porcelain tile panels. Mapei Corporation's Technical Services Manager, Jim Whitfield, spoke to a roomful of contractors on "How Flat is Flat? Surface Preparation for Installations." Mike Granatowski, Mapei Corporation's National Manager for Architectural and Commercial Projects, presented an "Introduction



to Moisture Mitigation in Stone Installations."

As part of the company's further involvement with the Marble Institute of America (MIA+BSI), Mapei representatives also attended the National Stone Institute Pinnacle Awards, where the company sponsored the awards for the Commercial Exterior and Interior categories.

At this year's TISE, Mapei Corporation held its traditional in-booth VIP hospitality event on January 31st. The event was attended by hundreds of clients as well as members of the media.

This article was taken from Realtà Mapei Americas, no. 26.

ABOVE. Numerous innovative solutions were shared with customers visiting the Mapei booth.

BELOW. The Mapei Demo Team attracted a large number of visitors to its demonstrations. The Mapei booth also hosted the Mapei VIP hospitality event and a press conference.





COVERINGS

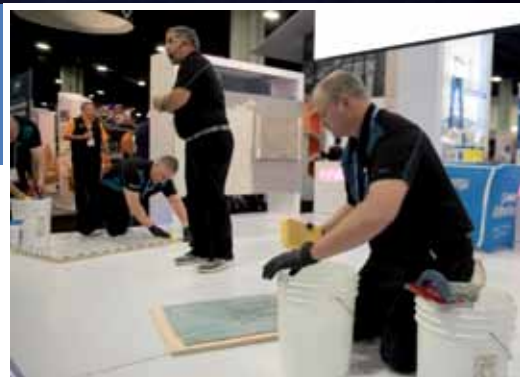
DEMONSTRATIONS, SPECIAL EVENTS AND CHARITY WORK: MAPEI WAS ENGAGED ON ALL FRONTS AT THE NORTH AMERICAN CERAMICS EXPO

This year's Coverings event, held at the Georgia World Congress Center in Atlanta from the 8th to the 11th of May, had over 1,100 exhibitors from all over the world and featured over 45 educational sessions. Nearly 25,000 natural stone and ceramic tile industry professionals attended the week-long expo.

Mapei exhibited in two booths: one in support of Mapei Corporation and one to support the North American Adhesives brand. Both booths were very popular. Among products showcased this year were PLANITOP 330 FAST moisture-resistant wall render and patch, MAPEI FLEXCOLOR 3D translucent and ready-to-use grout, the family of thixotropic mortars, and the new MAPEGUARD WP 200 sheet-applied waterproofing membrane. The Mapei demo team – which included Sam Biondo, Gerald Sloan, Logan Reavis, Scott

Markham and Scott Benavent – kept booth visitors entertained and informed with multiple in-booth demos of the various products. They also participated in a variety of installation demonstrations at the Tile Contractors of North America (TCNA) Demonstration Stage.

Mapei continued its role as a provider of industry-leading information as well. Technical Services team members Cris Bierschank, Jim Whitfield, John Kester and Dan Marvin all presented educational sessions on topics such as "Sustainability," "Exterior Tiling," "Blogging," "Social Media Engagement" and "Health, Wellness and Tile." On the afternoon of May 10th, the entire team gave a three-hour presentation and demonstration on using MAPEI ULTRALITE S2 adhesive for large-size porcelain tiles. In front of a large audience, the crew installed 0,91 x 3,05 m tiles on



TOP OF THE PAGE. Mapei Corp.'s new booth space at Coverings 2018 focused on core products for ceramic tile and stone, but it also highlighted the new MAPEGUARD WP 200 waterproofing membrane as well as MAPEI FLEXCOLOR 3D grout.

ABOVE. The Mapei demo team kept booth visitors entertained and informed with multiple in-booth demos of the various products.



LEFT. Mapei donated materials for the Installation Design Showcase's Tiny Home Event. Mapei products were used to complete a "Luxe Cottage": a high-end, yet cozy, environment for couples seeking a mountainside getaway with all the luxuries of home.



charity event, "such as the construction of tiled doghouses to be donated to local shelters or tiled benches to be given to local parks. For the 2018 show, this charity event was held on May 7th "to give back to the local Atlanta community in a meaningful way, specifically by packing hygiene kits for homeless veterans through Clean The World." Marvin continued, "Clean The World starts by collecting unused toiletries from hotels. Through the generous support of Mapei and contributions from Florida Tile, NTCA (National Tile Contractor Association) and our industry's publishing groups, we were able to pack 800 kits and ship them immediately to the veterans. Mapei also provided T-shirts and logistical support."

Coverings 2018 was an excellent show, highlighting not only Mapei's industry-leading products, but also its commitment to the highest environmental and social stewardship.

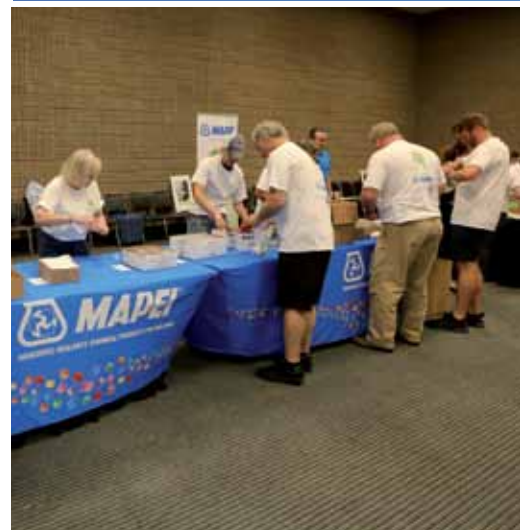
a wall and on a floor.

Another popular product demo in which Mapei participated was the Installation Design Showcase's Tiny Home Event. In order to showcase the increasing interest in this design and building trend, the Coverings expo worked with designers to create three small, sustainable, and luxurious homes, each measuring approximately 12,2 x 6,10 m.

Mapei was among the sponsors donating materials. John Kester, Mapei Corp.'s Technical Services Sustainability Advisor, explained that the Mapei "products were selected based on their performance and green aspects." They included MAPEI ULTRALITE MORTAR, which Kester describes as a "lightweight mortar that is Green Squared certified, has a product-specific EPD (Environmental Product Declaration), is LBC Red-List Free, and a third-party certi-

fied Manufacturer Inventory (MI), which discloses 'chemical transparency' of the product ingredients down to 1000 ppm. This product represents the commitment that Mapei has toward product performance and transparency going hand-in-hand." Other donated products included ULTRACOLOR PLUS FA, ECO PRIM GRIP, NOVOPLAN 2 PLUS, MAPELASTIC AQUADEFENSE, MAPE-SIL T and PLANITOP 330 FAST. All the products mentioned in this article are manufactured and distributed in the USA by Mapei Corporation, while ECO PRIM GRIP, ULTRALITE S2, and MAPELASTIC AQUADEFENSE are also available on the international market. Mapei also had the opportunity to support the "Clean The World" charity event. As described by Dan Marvin, Technical Services Director, the Coverings trade show always includes a

BELOW. In conjunction with the Coverings expo, the Mapei team participated in the "Clean The World" community service event, packing 800 hygiene kits for homeless veterans. (Photo courtesy of Robb Cohen Photography & Video).



THE WINNERS OF THE “2018 CERAMICS OF ITALY TILE COMPETITION”

The “Ceramics of Italy Tile Competition” is an initiative of Confindustria Ceramica to promote excellence in the use of Italian ceramic tiles in buildings designed in North America. This page contains a list of the 2018 awarded projects.

RESIDENTIAL ARCHITECTURE

1. Winner

Project: Baltimore Slate House,
Baltimore (Maryland, USA)

Design: Ziger/Snead Architects

2. Honourable Mention

Project: Norwich, West Hollywood
(California, USA)

Design: DI Group



1



2

COMMERCIAL ARCHITECTURE

3. Winner

Project: Sapphire, Berlin (USA)

Design: Studio Libeskind, New
York

4. Honourable Mention

Project: Venetian Isle
Clubhouse, Windermere
(Florida, USA)

Design: Kay Green Design



© Hulton + CrowHouse Photography



4

INSTITUTIONAL ARCHITECTURE

5. Winner

Project: Bergeron Centre
for Engineering Excellence
at York University (Ontario,
Canada)

Design: ZAS Architects +
Interiors



© Double Space Photography

5

6. Honourable Mention

Project: Holy Name of
Jesus Cathedral, Raleigh
(North Carolina, USA)

Design: O'Brien & Keane



© Alan Karchner

6

This project involved the use of several Mapei Corp.'s solutions from the ceramic product line

“STUDENT” ARCHITECTURE

7. Winner

Project: Dover Street
Market, Miami (Florida, USA)

Design: Raquel Raney and
Brennan Broome, Florida
International University



7

Thanks to ADMIRAL MAPELASTIC not even a single drop of water can get through

NEW RADIO ADVERTS TO HIGHLIGHT HOW SUCCESSFUL
MAPEI'S CONSTANT RESEARCH CONTINUES TO BE



EVERYTHING'S OK WITH MAPEI

You can really feel the tension on deck. The wind is blowing hard and a storm is about to hit the ship. It is suddenly submerged under an infernal barrage of water but, below deck, not even a single drop has got through. Admiral Mapelastik is more than happy: "after all the tests" he had been waiting for this moment! These are not the opening scenes of a film about an adventure at sea. It is the advert for MAPELASTIC that has been aired since 23rd April and will continue right through summer 2018 on Italy's main radio channels and networks.

A slightly ironic 30-second advert focusing on the main traits of this famous elastic two-component, flexible, cementitious mortar for waterproofing balconies, terraces, bathrooms and swimming pools, available from leading distributors of building materials and ceramic tiles.

For 30 years now MAPELASTIC - the flexible cementitious membrane for waterproofing safely and permanently - has been used to waterproof over 350 million square metres and has not allowed even a single drop to get through. Terraces, balconies, swimming pools, dams.

As well as the radio adverts, the advertising campaign also includes ads in sports dailies. This is aimed at emphasising the fact that the range of MAPELASTIC flexible cementitious mortars is the result of years of research carried out at Mapei's Research & Development laboratories, guaranteeing certified quality for waterproofing safely and permanently.

The radio campaign - handled by the Jack Blutharsky advertising agency - covers five Mapei products based around five different characters.

The overall tone is deliberately vehement, assertive and authoritative, the kind the military use when exchanging commands. But there is also lots of irony and plenty of puns in the exchanges between General Keraflex, Admiral Mapelastik, Commander Mapei, Agent Poromap and their comrades.

"Everything is okay with Mapei" is the claim at the end of all the adverts, a certified guarantee for experts in the industry: floor layers, installers, painters and decorators, as well as designers, architects, etc - the people this Mapei radio campaign is directly intended for.





BROOKLYN-BATTERY TUNNEL in New York

INSTALLING CERAMIC TILES IN THE LONGEST CONTINUOUS UNDERWATER VEHICULAR TUNNEL IN NORTH AMERICA

The Brooklyn-Battery Tunnel, officially known as the Hugh L. Carey Tunnel, is a toll road in New York City that crosses under the East River at its mouth, connecting the Borough of Brooklyn on Long Island with the Borough of Manhattan. The tunnel nearly passes underneath Governors Island, but does not provide vehicular access to the island. It consists of twin tubes, carrying 52,000 automobiles daily along four traffic lanes, and at 2,779 m is the longest continuous underwater vehicular tunnel in North America.

THE HISTORY OF THE TUNNEL

Proposals for a crossing between Battery Park in lower Manhattan and the Red Hook section of Brooklyn had been around since 1929. Originally envisioned

as a three-tube, six-lane tunnel, the crossing was to connect two pieces of rapidly expanding arterial network: the West Side Highway in Manhattan, and the "circumferential bypass" (later known as the Gowanus Expressway and the Belt Parkway) in Brooklyn.

The proposed tunnel was approved by the New York City Board of Estimate in

1930. However, its construction was delayed by the deepening economic depression.

The Brooklyn-Battery Bridge proposal was officially killed in 1939 when the Secretary of War under the Roosevelt Administration, Harry Woodring, said that the proposed crossing would be seaward of the Brooklyn Navy Yard. According to the War Department, the proposed bridge would have not only been vulnerable to attack in the event of war, but would also have blocked access to the Navy Yard.

Under the direction of Ole Singstad of the New York City Tunnel Authority, construction of the Brooklyn-Battery Tunnel commenced in 1940. Work on the tunnel, originally scheduled for completion in 1943, was halted due to World War II-induced shortages of steel and iron. When construction resumed in 1945, more than 450,000 kg of dynamite was used to bore through rock and earth beneath New York Harbor.

Over 12.6 million kg of steel, over 156,000 m³ of concrete, 3,011,083 m of electrical wire, 883,391 bolts, and 799,000 wall and ceiling ceramic tiles went into the structure.

In addition, about 93,600 tons of cast iron were used to line the tunnel. Ventilation was to be provided by 53 fans, operated by 104 motors that release over 170,000 m³ of fresh air into the tunnel.

The Brooklyn-Battery Tunnel opened in 1950 at a cost of 90 million U.S. dollars. The tunnel was a success from the very beginning, carrying approximately 41,000 vehicles per day during its first full year of operation in 1951.



PHOTO 1. The tunnel after the storm caused by Hurricane Sandy.

PHOTO 2. Preparing the installation bed with MODIFIED MORTAR BED.



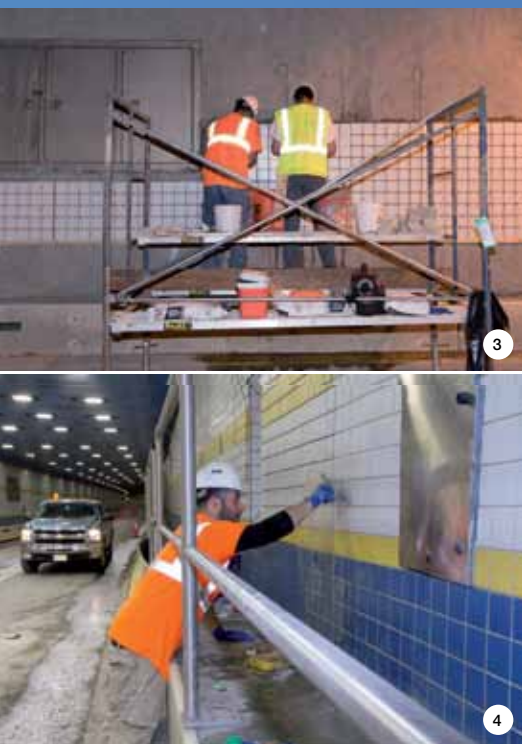


PHOTO 3. Installing ceramic tiles with ULTRAFLEX 3.

PHOTO 4. Grouting tile joints with ULTRACOLOR PLUS FA.

PHOTO 5. A view of the tunnel after completion of the works.



MAPEI PRODUCTS AT WORK ON THE JOBSITE

The tunnel was closed in preparation for Hurricane Sandy and completely flooded on October 29, 2012, after a severe storm surge. It reopened on November 13, following a cleanup process that included the removal of more than 227 million liters of water. The tunnel was the last New York City river crossing to reopen. Hurricane Sandy flooded the tunnel with salt water, causing electrical problems within the concrete tube.

The existing ceramic tile and mortar bed were removed, and electrical wiring was repaired. A new mortar bed was created, and the ceramic tiles were re-installed.

Gibraltar Contracting, the tile contractor on the Brooklyn Battery Tunnel project, was asked to float a new mortar bed and install 43,055 m² of Agrob Buchtal "Chroma" façade ceramic tiles across 4.5 m high walls of the 2.8-km long expanse of the Manhattan-to-Brooklyn side of the Brooklyn Battery Tunnel. The Chroma tiles offer easier cleaning, as well as diffusing light for motorists. These tiles also act as a fire-retardant, providing a protective coating for the tunnel in the event of a fire.

The biggest challenge came in preparing the installation bed for the bonding of the tiles. The removal of the original tiles left an extreme profile on the surface of the concrete substrates along the walls. The Gibraltar crew applied two coats of MODIFIED MORTAR BED, a premixed cement-based polymer-modified thick-bed and render mortar, that includes a blend of select aggregates.

This was a great solution because, rather than requiring the use of a latex additive, MODIFIED MORTAR BED only needs mixing with water to produce a thick-bed mortar with exceptional strength. With that challenge well met, the installers moved on to installing the nearly 800,000 ceramic tiles. Around the tunnel's access areas for periodic maintenance, the crew installed a mint-green ceramic tile to make these areas easily visible.

All the tiles were set with ULTRAFLEX 3 adhesive. The crew then grouted all the joints with ULTRACOLOR PLUS FA grout, which produces no efflorescence. All the products used in this project are manufactured and distributed on the US market by Mapei Corp.

Work on the Manhattan-to-Brooklyn tube of the tunnel was completed in March 2017 as a part of a 282.5 million US-dollar repair job.

TECHNICAL DATA
Brooklyn Battery Tunnel
(Hugh L. Carey Tunnel),
 New York City (USA)
Original Design: Ole Singstad
Periods of construction:
 1940-1943, 1945-1950
Period of the Mapei intervention: 2016-2017

Intervention by Mapei:
 supplying products to prepare the substrates, install ceramic tiles, and grout tile joints
Client: City of New York (MTA Bridges and Tunnels)
Works director: Christian Varela
Main contractor: Tully Construction

Installation company:
 Gibraltar Contracting
Mapei distributor: Pro Tile Inc.
Mapei coordinator: Matt Hess, Mapei Corp. (USA)

MAPEI PRODUCTS
Preparing the substrates:
 Modified Mortar Bed*
Installing ceramic tiles: Ultraflex 3*

Grouting joints: Ultracolor Plus FA*

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

For further information on products see www.mapei.com

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BELOW. Positioning the pre-cast concrete elements at the U.S. Bank Stadium, which were completed by using high-performance admixtures supplied by GRT, a Mapei Group's subsidiary.



© Mark Herreid/Shutterstock.com

THE U.S. BANK STADIUM in Minneapolis

HIGH-QUALITY ADMIXTURES FOR PRECAST CONCRETE ELEMENTS AT THE STADIUM HOME OF THE MINNESOTA VIKINGS

In a recent press release, the Minnesota Vikings, the professional American football team based in Minneapolis (Minnesota, USA), congratulated Mortenson Construction, the main contractor appointed for renovation works, on completing the new U.S. Bank Stadium six weeks ahead of schedule: "On June 17, Mortenson Construction symbolically handed the keys of the state-of-the-art venue to the Vikings and Minnesota Sports Facilities Authority (MSFA) to celebrate the substantial completion point of the over 162,500 million m² U.S. Bank Stadium. Some details and cleanup remain, but the milestone for the largest public/private construction project in state history was reached six weeks before the deadline." "Today's achievement is an incredible feat by HKS, Mortenson Construction, the MSFA and the Vikings, as well as the hundreds of subcontractors and thousands of Minnesota men and women who worked on this project over the last two and a half years," said Vikings Owner/President Mark Wilf. "U.S. Bank Stadium was designed with the fan experience as the number one priority, and to accomplish this milestone ahead of schedule is a testament to the talent and dedication by so many."

Wilf credited HKS architects for "designing a truly remarkable building through talent and ingenuity." He said the execution of those ideas occurred via the skills and craftsmanship of 8,000 construction workers, including 1,300 at a time during the peak of the construction process.

The project, on which ground was broken before the final game at the old Metrodome stadium in December 2013, resulted from a collaboration led by General Superintendent

Dave Mansell. Mansell began scheduling the building in his head in December 2012 and then led the process with use of a 4D computerized scheduling model.

People are surprised to learn that U.S. Bank Stadium has risen from the recycled rubble of the Hubert H. Humphrey Metrodome so quickly and that it is nearly twice the size of its predecessor.

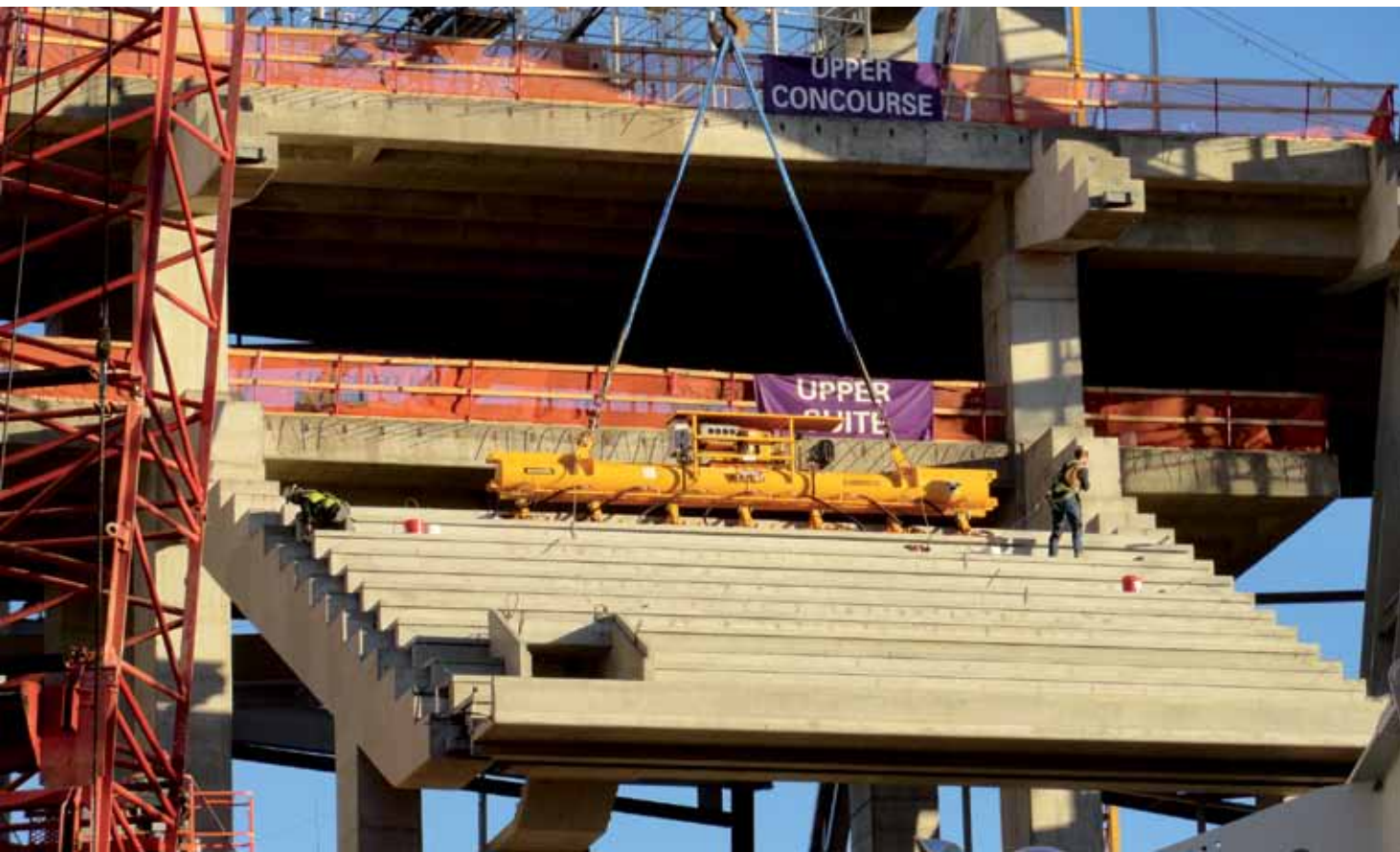
The U.S. Bank Stadium can hold hold 65,400 fans when the Minnesota Vikings play their home games against other National Football League (NFL) football teams.





ABOVE. An external view of the stadium during construction works. **BELOW.** Building the main cover of the stadium.





ABOVE. Positioning a pre-cast concrete stand.

The first event hosted at the renovated stadium was a football game in which defending Premier League champions Chelsea and A.C. Milan faced off on August 3 as part of the 2016 International Champions Cup. The U.S. Bank Stadium was also the site of Super Bowl LII in 2018.

HIGH-PERFORMANCE ADMIXTURES FOR PRE-CAST CONCRETE STRUCTURES

Mapei/GRT, a U.S. subsidiary of the Mapei Group, supplies admixtures to Wells Concrete for use in strengthening and modifying concrete to jobsite requirements. Wells Concrete precast and erected a total of 5,096 pieces of concrete elements for the U.S. Bank Stadium. The pieces were delivered via 1,534 truckloads over the duration of the project. Approximately 11,435 m³ of concrete was required for the work, and 30,288 tons of precast concrete was poured and shipped from the concrete plant to the jobsite.

The concrete elements included, among other pieces, stands, stairs, structural beams and tunnel walls leading from the dressing rooms to the field.

The GRT admixture combination selected for this high-performance concrete mix design consisted of POLYCHEM VR air-entraining admixture, POLYCHEM SUPER SET non-chloride accelerating admixture, EVO 2500 super plasticizer and POLYCHEM VMA viscosity modifying admixture.

These products were used by the concrete suppliers in order to produce self-consolidating concrete with a consistent minimum compressive strength of 10,000 PSI (69 MPa) with a

0.31 ratio of water to cement (an internal and external specification for the concrete). Class A finishes were required on all the elements, and the consistent mix supported by GRT admixtures met all the construction specifications. Admixtures needed to be very stable, with consistent high flows, strength, air entraining and slumps/spreads over and over again. The GRT products were able to impart these qualities to the mix.

TECHNICAL DATA

U.S. Bank Stadium,
Minneapolis (Minnesota, USA)
Clients: Minnesota Sports
Facilities Authority and the
Minnesota Vikings
Design: HKS, Inc.

**Structural and engineering
design:** Thornton Tomasetti, KC
Period of construction:
2013-2016

**Period of the Mapei
intervention:** 2013-2016

Mapei intervention:
supplying admixtures for
concrete

Main contractor: Mortenson
Construction

Project manager:
Dave Mansell, Mortenson
Construction

Concrete contractor: Wells
Concrete Products, Inc.

Mapei coordinator: Travis
Collins, GRT (Mapei Group)

Photos by: Travis Collins and
Claudio Genoria, Mapei/GRT

**PRODUCTS BY
MAPEI/GRT**

Admixtures for concrete: EVO
2500, Polychem Super Set,
Polychem VR, Polychem VMA

* These products are
manufactured and distributed
on the US market by
Mapei/GRT.

For further information on
products visit www.mapei.com

MAPEI/GRT: growing fast and strong

THE GROUP'S U.S. CONCRETE ADMIXTURES SUBSIDIARY IS EXPANDING ITS SALES, RESOURCES AND OPERATIONS



The Mapei concrete admixtures line was first introduced in 1992 with the development of the first-ever, acrylic-based superplasticizer in Europe. Thanks to technological innovations and the constant development of new products, Mapei concrete admixtures category now offers solutions for a varied range of construction needs, from large-scale projects to residential buildings.

In 1993, General Resource Technology, Inc. (GRT) came onto the market

in the United States as a regional manufacturer and supplier of concrete admixtures, serving concrete producers in the Midwest. The smaller company grew in its field as Mapei did in Europe. Then, in 2014, GRT became a member of the Mapei family. Over the past three years, Mapei/GRT has been growing fast and strong.

We recently met with Jesse Osborne, the General Manager of Mapei/GRT, and engaged him in a Q&A interview about the subsidiary and its role in the concrete admixtures market today.

Mapei acquired GRT four years ago. How is Mapei/GRT today different from GRT four years ago?

The biggest difference between then and now is geography. We have grown from two regional operations areas in the central U.S. to four geographic areas, and we are adding two new areas in 2018.

We are moving quickly to meet the needs of our customers, developing a full line of pre-cast admixtures as well as rounding out the ready-mix admixture product line. We are able to accomplish this work on a fast-track schedule due to the support of the Mapei R&D Corporate Laboratory, a centre of excellence for concrete admixtures, located in Milan, Italy. Global support like this really helps us grow at an accelerated rate.

Following our company's vision of working "faster, further, together," we have been collaborating with other Mapei subsidiaries and teams like our Underground Technology Team. This teamwork allows us to develop synergies that increase opportunities for brand recognition and build our presence in North America.

How does Mapei/GRT interact with Mapei's Research & Development group?

In monthly meetings, Mapei/GRT discusses projects and prior-

ities with the R&D Centre in Milan. The group offers Mapei/GRT help and solutions based on R&D projects that Mapei/GRT is working on at their lab in Eagan, Minnesota. A new U.S.-based technical center was recently established in Swedesboro, New Jersey, where the majority of Mapei/GRT research takes place. Mapei's popular DYNAMON SX is an example of global technology that has been added to the Mapei/GRT portfolio.

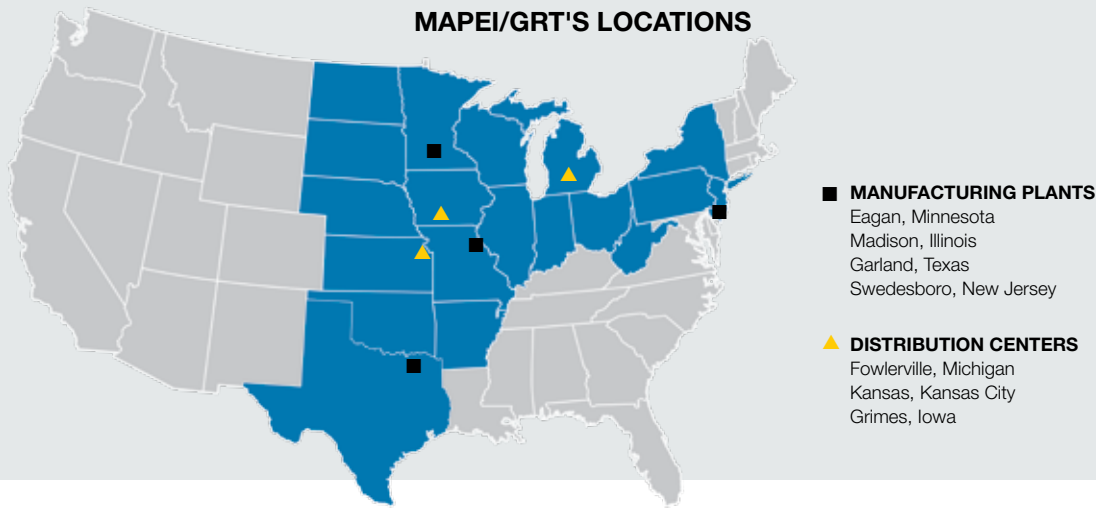
What is Mapei/GRT's current go-to-market strategy?

Mapei/GRT specializes in the concrete admixtures category as a part of Mapei's complete strategy to serve the needs of the construction industry in building and infrastructure.

Mapei/GRT supplies liquid admixtures directly to concrete producers, while Mapei's Concrete Restoration Systems [CRS] group sells in the more traditional way through distributors. CRS products are used directly on the jobsite, while concrete admixtures are generally used by the concrete producers before they reach the jobsite.



MAPEI/GRT'S LOCATIONS



What are the logistics involved in delivering Mapei/GRT concrete admixtures to the jobsite (and what is a typical jobsite)?

Mapei/GRT does not traditionally deliver products to jobsites. Our customers are usually concrete producers for the ready-mix, pre-cast and paving sectors. Mapei/GRT representatives go to a concrete producer's facility and do test evaluations to determine which products are needed and the right quantities for optimal performance.

Bulk tankers then deliver the liquid Mapei/GRT admixtures to the concrete producers at their factories, where the materials are kept in storage tanks until they are ready to be used.

This production and shipping process is very different from that used for the typical Mapei products for concrete repair, which are produced and packaged in a powdered form and then sold in bulk to distributors who warehouse the products for local purchase and use.

These differences explain in part why Mapei/GRT has its own specialized sales force, as well as "same-but-different" operation locations that are sometimes housed at, but are separate from, Mapei production facilities.

How have Mapei/GRT's human resources expanded/realigned to meet the needs of the subsidiary's growth and expansion?

We have increased our sales staff 10% in the past few years and will continue at this rate in the short term.

We will also be increasing our support staff to handle the increase in sales. These new hires will include customer support and plant operations personnel.

We have excellent Technical Services support in the U.S. and from Mapei, and we will enlarge this group in North America as demand for our products and services increases.

What is Mapei/GRT's goal for 2020?

In the U.S., our strategic plan includes continuing to increase our footprint by adding more geographical locations and enhancing our national brand recognition.

Our current competitors have been ingrained in this country for many years; but we feel that, with Mapei's global support, Mapei/GRT will be able to make a solid impact over the next few years.

What new products, systems or solutions is Mapei/GRT looking to bring to the market in the next few years, and why were these products selected for de-

velopment?

Pre-cast concrete producers represent approximately 25% of the admixtures market, while roughly 60% of admixtures are supplied to the ready-mix market. And about 15% of admixtures are supplied to concrete producers for the paving market and other specialties.

The biggest priority for development in the next few years is our special concrete admixtures for the pre-cast sector. Pre-cast concrete is very different from ready-mix concrete, and the two sectors have distinct needs for their admixtures. Pre-cast is all about speed and efficiency, so these producers want products that react quickly and develop strength quickly. Production time is essential for them.

To secure a significant share in the pre-cast market, Mapei/GRT intends to offer a complete line of admixtures to meet the requirements of these concrete producers.

Please tell us about some of the projects in which Mapei/GRT has been involved.

As can be seen in a dedicated article in this issue of *Realtà Mapei International*, Mapei/GRT concrete admixtures were provided for pre-cast and ready-mix concrete used at the U.S. Bank Stadium in Minneapolis, home of the Minnesota Vikings. Mapei/GRT concrete admixtures were also used for pre-cast and ready-mix work in and around Lambeau Field, the home of the Green Bay Packers, including the Titledown District destination adjacent to the stadium.

Large-scale windmill projects nationwide have been benefiting from Mapei/GRT concrete admixtures supplied to ready-mix concrete producers. Participating in a small but important way in sustainable energy projects is an accomplishment that Mapei/GRT is quite proud of.

Highway infrastructure in the central United States is a construction sector where Mapei/GRT concrete admixtures for paving have played an increasing role too.

How does Mapei/GRT participate in Mapei's sustainability programs?

Mapei/GRT is working on ISO 14001 Environmental Management Systems [EMS] certification in line with Mapei Group's worldwide commitment to sustainability in our operating plants. This program involves our people, processes and products.

This article was taken from Realtà Mapei Americas, no. 26, the in-house magazine edited by Mapei Corp., whom we thank.



SUSTAINABILITY ACROSS-THE-BOARD at the Mapei Specification Centre and Ecobuild fair

MAPEI ORGANISED A SERIES OF EVENTS FOCUSING ON SUSTAINABILITY
AT CLERKENWELL DESIGN WEEK IN LONDON



Mapei UK's (the Group's British subsidiary) Specification Centre has been operating in the Clerkenwell district of London for over three years. This space is entirely devoted to the world of design, a booming sector in the United Kingdom. Over the last few years London has gained the reputation for being an international capital of modern architecture: more and more skyscrapers and towers are appearing on the London skyline, often designed by world-famous architects

thanks to both local and foreign investment, placing London at the focus of global architectural experimentation. Since the Clerkenwell district boasts an extremely high concentration of design and architecture practices, the Mapei Specification Centre clearly has an international vocation. Architects and designers from all over the world have access to technical assistance, exhaustive information about innovative products, practical solutions to building problems, help



The Mapei Specification Centre in London is in the dynamic Clerkenwell district, home of lots of architecture and design firms. Mapei guests got the chance to attend presentations on special topics accompanied by a tasty lunch.

Visitors also got the chance to learn how to create a terrarium in a bottle during breaks between one presentation and another.



On 23rd May the Specification Centre hosted a presentation of Polyglass's sustainable membranes for roofs.

with design work and specifications, plus training and CPD (Continuing Professional Development) events. The training and CPD events cover a wide range of interesting topics on all aspects of construction: from quick drying mortars for screeds to solutions to the commonest problems when installing ceramics and preparing substrates and systems for effective waterproofing.

CREATIVITY AND SUSTAINABILITY FOR CLERKENWELL DESIGN WEEK 2018

The Mapei Specification Centre in London stages special events organised in conjunction with important happenings in the world of architecture and design: first and foremost, Clerkenwell Design Week (CDW). The dynamic Clerkenwell district, where the Specification Centre is located, is also a global focal point and benchmark for design with one of the highest densities of creative enterprises on the planet. Once a year, it opens its doors to thousands of visitors from all over the world attending Clerkenwell Design Week, which takes place in spring and attracts a vast number of people

and businesses.

This year it was held from 22nd to 24th May: lots of showrooms and companies opened up their doors to numerous visitors, mainly architects and designers, and hosted hundreds of events.

Some of the most enticing were organised by Mapei UK, this year, focusing on sustainability: the Group's commitment to protect the environment, the rational use of natural resources and energy, and solutions to reduce the environmental impact caused by its own products and processes.

More specifically, professionals operating in the industry were invited to attend "Lunch & Learn" seminars held on each of the three days of CDW. Training sessions were accompanied by refreshments and alternated with workshops led by expert florists, who explained the art of creating a terrarium arrangement in a glass jar. "Lunch & Learn" seminars

focused on Mapei's eco-sustainable solutions for decorative and protective wall finishes and external wall insulations (EWI), specifying sustainable flooring solutions, and 'Green Roof Solutions', notably featuring membranes manufactured by Polyglass, one of Mapei Group's subsidiaries.

On the evening of Wednesday 23rd May, the Mapei Specification Centre invited over 100 guests to attend a typical "Italian evening" serving the very best of Italian food and drink. The evening was attended by Charlie Luxton, a designer famous for presenting "Building the Dream", a popular TV programme in the United Kingdom in which Luxton helps viewers create the home of their dreams. Since Luxton is a wholehearted supporter of eco-sustainability in the building industry, his presence at the event fitted in perfectly with the principles underlying the Mapei Specification Centre's com-



Charlie Luxton, a very popular designer in the United Kingdom and star of the television program "Building the Dream", gave a presentation that was a real hit with the public.



On 24th May Tim Boarer, Mapei UK Specification Manager for the London area, presented Mapei sustainable flooring solutions.

The bicycle Mapei UK awarded for sharing posts on Facebook and Twitter about Mapei Specification Centre's events at Clerkenwell Design Week.



munication campaign. The presentation was extremely well received by everyone attending the evening.

To increase its visibility on social media, the Group's British subsidiary offered a Brompton bike as an incentive for visitors to spread the word about Mapei UK's events on Facebook and Twitter.

Mapei UK collaborated with Harper Downie architects practice to create an installation at Design Fields, not far from the Specification Centre. It encompassed two distinct areas "Conversations at Clerkenwell in partnership with Mapei" and the "Mapei Space". The installation provided an arena for holding

presentations of the highest standing, which perfectly embodied the company's close working relations with both architects and designers. The two connecting spaces demonstrated Mapei's quest for excellence to deliver high quality presentations and CPDs discussing industry trends and exploring the comprehensive range of Mapei products, globally training over 161,000 building professionals. The "Mapei Space" demonstrated the versatility of Mapei's coatings to create an attractive pattern. The setting, designed by Nava Studio for the magazine *Marie Claire Maison*, was previously on display at the Mapei stand at Cersaie in Bologna 2017. It also showcased 'A ribbon in space' photographs by London based photographer Liam Leslie and the OBJECT / IMAGE pottery by artist William Martin, supplied by Velorose Gallery. The Mapei Space, styled as a lounge room setting, was completed using SILANCOLOR, DURSILITE MATT and DURSILITE GLOSS coloured coatings. Within the 'Talk Space', carpet planks were installed using ULTRABOND ECO TACK adhesive. The oak parquet was installed using ULTRABOND ECO MS 4 LVT silylated polymer based adhesive.



Mapei UK recreated the setting designed by Studio Nava for the magazine *Marie Claire Maison* and used this "Mapei Space" for hosting meetings and expositions during the Clerkenwell Design Week.

ECOBUILD

Innovative solutions for eco-sustainable buildings in UK

Ecobuild is the leading exhibition and conference for construction, design and energy in the built environment in the UK, attracting high calibre, senior level decision makers and influencers from architects and developers to local government and major infrastructure clients. This year the trade fair welcomed over 26,590 visitors from 6th to 8th March at ExCeL Centre in London, with a high percentage (above 88%) of visitors at managerial level.

Mapei was again present at this year's edition of Ecobuild, through its subsidiary Mapei UK. The company stand was split up into zones to provide a clearly defined product area, demonstration area and corporate networking area. The product zones included plinths for eco-sustainable product system samples for the installation of resilient, ceramic and wooden floors coverings, as well as solutions for concrete repair, thermal insulation, and waterproofing. A seating area was provided in the centre of the stand showcasing technical and corporate videos: an ideal space for networking opportunities. Open spaces were utilized to

promote Mapei's Product Life Cycle Assessment methods and the production of Environmental Product Declarations (EPDs), given Mapei's traditional attention to eco-sustainability.

A popular attraction to the Mapei stand at Ecobuild 2018 were the twice daily live product demonstrations of the MAPETHERM thermal insulation system, which was accredited by the British Board of Agrément (BBA, a UK body issuing certificates for construction products and systems), and ULTRALITE family of adhesives especially suitable for installing large-size thin porcelain tiles. The demonstrations, which were streamed by 2 TV's, offered the perfect chance for the presenter and staff on the stand to offer advice and answer any product or technical questions the audience may have. They also created a buzz of activity around the Mapei stand and continued to pull a large crowd to the stand offering a perfect chance for Mapei staff to interact with visitors. Stand visitors were welcomed with a coffee and a goody bag consisting of a brochure dedicated to sustainability and



seed packets, continuing to promote the "Green By Nature" campaign focused on Mapei's eco-sustainable solutions for building.

Mapei UK has lately maintained its ISO 9001 2015, ISO 14001 2015 certifications and achieved the new standard of ISO 45001 2018 for its occupational health and safety management systems. This is an important recognition of Mapei UK's constant commitment to improve employee safety, reduce workplace risks and create better, safer working conditions.

ABOVE. Mapei UK's stand at Ecobuild 2018 presented all its eco-sustainable solutions for the building industry.

BELOW. This year product demonstrations focused on the benefits of MAPETHERM systems and adhesives from the ULTRALITE range.



NEW STREET STATION in Birmingham

REDEVELOPING THE BUSIEST RAILWAY STATION IN THE
UNITED KINGDOM OUTSIDE OF LONDON



IN THESE PAGES.

Birmingham New Street station demanded hard wearing flooring capable of dealing with the 140,000 passengers that move through it every day, while the owners wanted a floor that kept within the vision and aesthetic qualities of a modern, vibrant station. The use of high quality Mapei products ensured both criteria were met.



Birmingham New Street is the main railway station serving Birmingham, England's second city. It's located in the city centre and is a central hub for the British railway system. Around 80% of train services to Birmingham go through New Street. It is a major destination for intercity trains from London Euston via the West Coast Main Line.

It is also the central hub of the Cross-Country network, with long distance trains to a wide number of locations. Birmingham New Street is the busiest railway station and interchange in the United Kingdom outside London, with over 5.1 million passengers changing trains at the station annually.

A MODERN STATION

The original New Street station was built as a joint station by the London and North-Western Railway (LNWR) and the Midland Railway between 1846 and 1854 to replace several earlier rail termini. This was demolished and replaced by the current station in the 1960's. Birmingham New Street is an enclosed station, with buildings over most of its span.

An over 1 million Euro redevelopment scheme named Gateway Plus was awarded full funding by the British government in February 2008, and new designs were unveiled in September 2008. The redevelopment included a new concourse, a new exterior facade, and a new entrance on Stephenson Street.

Work started on the redevelopment a year later, and was completed in 2015. New Street also became the terminus of the city centre extension of the Midland Metro, also finished by 2015.

LONG-LASTING FLOORS

In April 2013, the refurbishment was half way through Phase 1 and the new

concourse was opened to the public, with the remaining half closed off for work to continue. Grants of Shoreditch and UK Screeders were responsible for preparing the substrates and installing a total of 20,000 m² of new flooring.

Initially Grants installed TOPCEM special hydraulic binder to create normal setting, fast drying and controlled shrinkage screeds, suitable to receive the ceramic flooring. TOPCEM lent itself to the project as it allows short installation times: 24 hours for ceramics and 2 days for stone. It is ideal for use in locations that would experience high levels of foot traffic, like the station.

The fast-setting, improved, deformable adhesive KERAQUICK S1 was used to install the new ceramic covering. Grant's installed approximately 19,500 m² of 450x150 mm natural granite slabs. Granite is the hardest of all building stones with a very dense grain, making it virtually impervious and uniquely applicable for any interior use. The stations concourses were expected to receive extremely high levels of foot traffic with over 100,000's of passengers passing through the station each day, so granite was an ideal material for the concourse. Once the granite slabs had been laid, the joints were grouted with ULTRACOLOR PLUS anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology. The product is ideal for grouting joints in floors and walls in areas subject to intense traffic, such as airports, shopping centres, restaurants, bars, railway stations, etc.

Approximately 500 m² of Mapei's resin and cementitious flooring products were also used to create behind the scenes service access and new flooring within the station.

Initially, UK Screeders used PRIMER SN,



PHOTO 1. The tiled areas were first prepared with TOPCEM before tiles were installed with KERAQUICK and ULTRACOLOR PLUS.

PHOTO 2. Temporary flooring on the concourse was made with ULTRATOP INDUSTRIAL finished with MAPECOAT I 620 W.



IN THE SPOTLIGHT

MAPEFLOOR I 350 SL

It is a two-component fillerized epoxy formulate. It is "class 1" fire resistant, Euroclass "B₁ - s1" and is suitable for self-levelling and multi-layered resin flooring with an attractive smooth or non-slip finish.

MAPEFLOOR I 350 SL meets the requirements of **UNI CEI 11170** - railway vehicles - Guidelines for fire protection of railway vehicles and vehicles with guiding rails.

It is used for coating floors in the chemical and pharmaceutical industries, in the foodstuffs industry, in laboratories, sterile and aseptic rooms and hospitals, as well as in automatic warehouses and shopping centres.



TECHNICAL DATA

Birmingham New Street railway station, Birmingham (UK)

Period of the renovation: 2009-2015

Period of the Mapei intervention: 2015

Design: Atkins

Main contractor: Mace

Screed and ceramic installation

contractors: Grants of Shoreditch, UK
Screeders

Mapei coordination: Mapei UK
Technical Services

MAPEI PRODUCTS

Preparation of substrates: Topcem, Primer SN

Installation of ceramic tiles: Keraquick S1, Ultracolor Plus

Completing cementitious floors: Mapefloor I 350 SL, Ultratop Industrial*, Mapecoat I 620 W

*This product is manufactured and distributed on the British market by Mapei UK.

For further information on products see www.mapei.com

two component, fillerized epoxy primer, to prepare the surface for the subsequent product build up. This provided a perfect key on the existing substrate for ULTRATOP INDUSTRIAL to bond to. ULTRATOP INDUSTRIAL, a self-levelling industrial floor manufactured and distributed on the UK market by Mapei UK, was used to create the new areas of flooring. These areas would act as a temporary surface to allow passenger access between the new completed concourses and the remaining walkways that have yet to be refurbished. ULTRATOP INDUSTRIAL may remain on view as a finished floor surface due to its high mechanical strength, but in

this commercial setting it was finished using MAPECOAT I 620 W.

MAPECOAT I 620 W is a epoxy coating in water dispersion, providing an anti-dust and oil resistant finishing treatment with a shiny effect.

MAPEFLOOR I 350 SL, a multipurpose, neutral-coloured, class 1 fire resistant, Euroclass "B₁-s1" epoxy formulate, was instead used to create service tunnels for contractors to access the site. It formed a continuous and flat surface with an attractive finish.

It was particularly suitable for use within the stations service tunnels as it provides a strong surface that is highly resistant to chemicals and abrasions.

THE **FAST-SETTING** HIGH-PERFORMANCE ADHESIVE



Keraquick Maxi S1 is the new **fast-setting**, high-performance adhesive for installing ceramics, marble and stone material, for floors ready for intense traffic in only 24 hours.

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



A new logistic centre for MAPEI SUISSE

MAPEI SUISSE CELEBRATED THE INCREASED STORAGE CAPACITY WITH CUSTOMERS AND BUSINESS PARTNERS

On 21st March 200 customers, journalists and partners of Mapei Suisse SA came together to celebrate the opening of a new warehouse for the Group's Swiss subsidiary in Granges-Paccot, in the west of Switzerland. The new facility, replacing the old warehouse previously used in Matran, doubles the storage space (now reaching 3330 m²) and speeds up loading/unloading operations: all designed to make Mapei's business customers and partners happier. The atmosphere of a building site was recreated specially for the event, combined with a touch of Italian-ness due to the presence of various Ape Piaggio used as food trucks. The guests were then offered some typical Italian refreshments to emphasise the close bonds with the mother company and they also got the chance to enjoy various types of entertainment: a performance by drummers, caricatures drawn on the spot, and a special area for souvenir photos. The evening had excellent results both in terms of the event's success and the work carried out so far by the Swiss subsidiary.

NOT JUST RAW MATERIALS

Mapei has been operating in Switzerland since the 1960s, when its exclusive distributors began supplying local customers with cutting-edge products and technology. Mapei AG was then founded in 1994, with of-

fices based in Rotkreuz (in Central Switzerland) and a representative office in Bussigny (Western Switzerland). The Sorens manufacturing plant in the Gruyère region of Switzerland was then acquired in 1999, speeding up the manufacture of strategic raw materials. The plant was, in fact, used for manufacturing re-dispersible powders to supply the Group's production units in various European nations. Since then Mapei has become the world's only manufacturer of cementitious adhesives incorporating re-dispersible powders. Mapei AG merged with Mapei Polymeres Suisse in 1999 and then became Mapei Suis-





se SA in 2000. In the years that followed notable investments by the Group allowed the Sorens plant to boost its manufacturing output and comply with the highest international safety and environmental protection standards. The facility now manufactures over 6,300 tons of admixtures for concrete-a-year, as well as polymer powders for Mapei plants in various European countries, for a total of 20,000 tons of products.

The Mapei Suisse training centre then officially opened in Sorens in 2016, evidence that training partners and customers are one of the subsidiary's main aims. The centre includes a room for more theoretical sessions that can accommodate up to 40 people, a foyer and a 50-seat room for putting on demonstrations equipped with special technical facilities.

Mapei Suisse currently employs 90 staff, has a wide-spread distribution network for all the Group's product lines in Switzerland, and is involved in prestigious building projects in Switzerland, such as those leading to the construction and renovation of Poya Bridge in Fribourg, Linth-Limmern Power Station, Arosa-Lenzerheide cable car, hospitals in Olten and Wintherthur, Sempione and San Gottardo tunnels, the Dolder Grand and Park Hyatt hotels in Zurich, the FIFA Museum in Zurich, the Geneva Stadium, etc..



TOP OF THE PAGE. The new Mapei Suisse's storage facility in Granges-Paccot in French-speaking Switzerland.

IN THE MIDDLE. Guests were welcomed by various representatives of Mapei Suisse on 21st March, including Martin Schneider (centre), Pascal Meierhofer (right), and Stéphane Ropraz (left), members of the Board of Directors.

LEFT. In the evening guests enjoyed a banquet, caricatures drawn on the spot, and a performance by drummers.

FACTS & FIGURES ABOUT THE GRANGES-PACCOT WAREHOUSE

3,330

STORAGE SPACE (M²)

3,000

PALLETS, 1815 OF WHICH ON SHELVES

20,000

TONS LOADED/YEAR;
100 TONS LOADED EVERY DAY

3

LOADING RAMPS

7

LOGISTICS WORKERS

FACTS & FIGURES ABOUT MAPEI SUISSE

20,000

TONS OF PRODUCTS MANUFACTURED AT SORENS PLANT

90

EMPLOYEES

100

MILLION EUROS: THE TURNOVER IN 2017

81

TRAINING EVENTS ORGANISED IN 2017

2,000

ACTIVE CLIENTS

THE CUSTOMERS SAY ...



"Mapei is a company that meets its customers' needs. Its delivery service works efficiently and its products are of the quality they claim to be."
Kevin Pietscher, Ernst Frey AG.



"I am delighted with Mapei. After working together for five years, I have no complaints: something extremely unusual in our industry."
Jonathan Burgy, RealSport SA.



"What counts for me is the products' value for money and the working partnership with Mapei technicians and agents."
Arbnor Prenkaj, von Däniken Plättli AG.



"For over 20 years now I have been more than happy with the quality of Mapei products and the support services it provides."
Adrian Poggio, Bruno Poggio SA.



"The Mapei agent I work with has great technical know-how and is always willing to answer my questions and sort out any problems arising as promptly as possible. I will be relying on the Granges-Paccot facility to provide an even more efficient delivery service."
Armando Loureiro, Lourejoins SA.

FROM HOSPITALS TO
 FACTORIES AND FROM OFFICES
 TO CLINICS: A BRIEF OVERVIEW
 OF PROJECTS RECENTLY
 COMPLETED IN SWITZERLAND
 USING MAPEI PRODUCTS



BUGNON CONSTRUCTION SA HEADQUARTERS - EPAGNY

For their tenth anniversary, the Swiss construction company Bugnon Construction SA decided to treat themselves to a gift by building new offices and a new warehouse.

The company's head office is in the Gruyère district and was conceived to act as a calling card for their clients: an intention that proved successful.

The various protruding floors running in different directions serve a practical function but, at the same time, demonstrate the technical expertise of the company.

Mapei played its part in the construction of the building by supplying waterproofing products (IDROSTOP SOFT and PLASTIMUL FIBER PLUS*), admixtures for concrete (DYNAMON SR 912-CH*, ANTIGELO S and MAPECURE E30), products for preparing substrates (PRIMER SN, QUARTZ 0.5, ECO PRIM GRIP and PLANIPATCH) and solutions to make the cementitious floors (ULTRATOP LOFT, ULTRATOP COLOR PASTE, MAPEFLOOR FINISH 52W and MAPEFLOOR FINISH 58 W).

TECHNICAL DATA

Period of construction:

2015-2017

Period of the Mapei

intervention: 2015- 2017

Client and main

contractor: Bugnon
 Construction SA

Design: Archilab Gabriele
 M. Rossi SA

Installation company:

Multisol Schornoz Sàrl

Mapei distributor:

Glasson, Bulle

Mapei coordinators:

Jocelyne Glinz and Pierre-
 Yves Evequoz, Mapei Suisse

MAPEI PRODUCTS

Idrostop Soft, Plastimul Fiber
 Plus*, Dynamon SR 912-
 CH*, Antigelo S, Mapeform

Eco 91*, Mapecure E30,
 Primer SN, Quartz 0.5,
 Eco Prim Grip, Planipatch,
 Ultratop Loft, Ultratop Color
 Paste, Mapefloor Finish 52
 W, Mapefloor Finish 58 W

*These products are
 manufactured and
 distributed on the Swiss
 market by Mapei Suisse



KUBUS CLINIC BADEN

The Kubus Clinic started out as a day-hospital to take some of the pressure off the nearby regional hospital in Baden by treating the high number of out-patients requiring check-ups, dialysis and examinations in the nephrology, oncology, haematology and radio-oncology departments.

Mapei played a part in the construction of this both imposing and original structure by supplying flooring products for a total surface area of 4,000 m². To meet the specific requirements of a hospital struc-

ture, the materials used had to be certified, sustainable and have very low emission level of volatile organic compounds and, because of the tight schedule, they also had to be quick to apply.

Going into detail, Mapei Suisse supplied a number of high quality products to prepare the substrates (PRIMER MF EC PLUS, QUARTZ 0.5, QUARTZ 1.2, ULTRAPLAN ECO PLUS and PLANIPATCH), an operation that proved to be extremely important in order to properly install the resilient floorings, which were bonded with the adhesives ULTRABOND ECO V4 SP FIBER and ULTRABOND ECO V4 SP CONDUCTIVE.



TECHNICAL DATA

Period of construction: 2014-2016

Period of the Mapei intervention: December 2015 – November 2016

Client: Kantonsspital Baden AG

Design: Confirm AG

Installation company:

MüPa AG

Mapei coordinator: Jens Stenzel, Mapei Suisse

MAPEI PRODUCTS

Primer MF EC Plus, Quartz 0.5, Quartz 1.2, Ultraplan Eco Plus, Planipatch, Ultrabond Eco V4 SP Fiber, Ultrabond Eco V4 SP

Conductive, Ultrabond

MS Rapid, Mapestrip

Perimeter 50*

*This product is manufactured and distributed on the Swiss market by Mapei Suisse



REHAKLINIK REHABILITATION INSTITUTE BELLIKON

In order to maintain its reputation as one of the best rehabilitation centres in the whole of Switzerland, particularly in the field of post-trauma therapy, and to provide cutting-edge services, the Bellikon Institute needed to programme a series of works to renovate and extend the structure. The intervention required the use of certified eco-sustainable products with very low emission of volatile organic compounds suitable for installing new porcelain tile, mosaic and stone

floor and wall coverings.

And Mapei Suisse was obviously able to meet these requirements by offering a wide range of solutions for each phase of the work: from the preparation of screeds to waterproofing work, and from bonding the floor and wall coverings to grout the joints. All with a guaranteed final result characterised by its high quality, aesthetics and sustainability. To the great joy of patients and medical staff alike!

TECHNICAL DATA

Period of construction:

2013-2017

Period of the Mapei

intervention: December

2016 – January 2018

Client: Suva

Main contractor: Gross Generalunternehmung AG, Brugg & Wallisellen

Installation companies:

von Däniken Plättli AG, Spiller AG

Mapei coordinators:

Raffael Schöni and Jens Stenzel, Mapei Suisse

MAPEI PRODUCTS

Primer G, Eco Prim Grip, Mapelastic, Mapeguard WP 200, Mapeband Grey*, Mapeband Butyl*, Primer MF

EC Plus, Quartz 1.2, Ultrabond Eco PU 2K, Elastorapid, Mapestone Basic*, Keraflex S1*, Kerapoxy CQ, Ultracolor Plus, Keracolor FL-S*, Ultrabond Eco S955 1K

*These products are manufactured and distributed on the Swiss market by Mapei Suisse



MAESTRANI'S CHOCOLARIUM FLAWIL

2017 saw the opening of Maestrani's Chocolarium chocolate factory in Flawil in the north of Switzerland, offering visitors the chance of a full immersion in the world of chocolate, with interactive rooms, courses on how to make chocolate and confectionery, a factory shop and a cosy coffee shop.

For this space the client, Maestrani Schweizer Schokoladen AG, requested the installation of a decorative cementitious floor made from ULTRATOP LOFT. Mapei Suisse was asked to take part in

the work right from the very start and proposed a system that included the use of PRIMER SN and QUARTZ 0.5 for the substrates, ULTRATOP LOFT F and ULTRATOP W trowellable cementitious pastes (white base) coloured with ULTRATOP COLOR PASTE for floors, and MAPEFLOOR FINISH 58 W finish to ensure a matt, abrasion-resistant surface. The result: floors with a craftsman's touch, perfectly in line with the refined chocolates and sweets produced by the master chocolatiers of Maestrani.

TECHNICAL DATA

Period of construction:

2015-2017

Period of the Mapei

intervention: November

2016 – February 2017

Client: Maestrani
Schweizer Schokoladen
AG

Design: KE Architekten,
Zürich

Installation company:

Marcel Müller AG

Mapei coordinator: Jan
Koch, Mapei Suisse

MAPEI PRODUCTS

Ultratop Loft F, Ultratop
Loft W, Primer SN, Quartz
0.5, Mapefloor Finish 58W,
Ultratop Color Paste



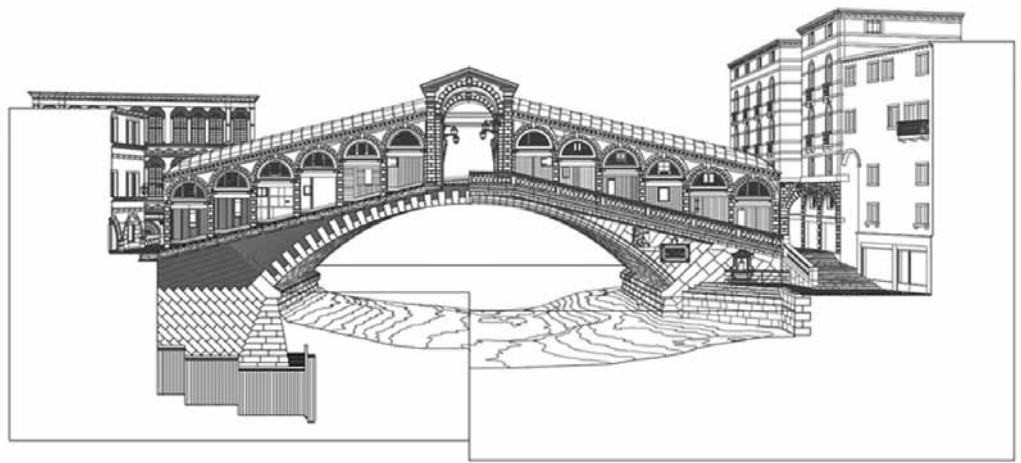
RIALTO BRIDGE IN VENICE

THE RENOVATION FOCUSED ON PRESERVING THE EXISTING MATERIALS, REMOVING THE DAMAGED ELEMENTS AND STOPPING ANY ONGOING DETERIORATION



RIGHT. A front view of the Rialto bridge, originally designed by Antonio Da Ponte.

BELOW. The Rialto bridge after completion of the renovation works.



Well aware of the need to preserve this world-famous symbol, Venice City Council decided to restore Rialto Bridge with an intervention to protect the structure from further deterioration while maintaining its functionality and its undeniable historical and artistic significance.

The restoration work was also made possible thanks to the support of Renzo Rosso and his OTB group, who sponsored the intervention with a contribution of 5 million Euros. Apart from handing over the work by the scheduled completion date, not all the funds set aside for the restoration had been spent so, in agreement with the City Council, refurbishment of the road surfaces under the Rialto Collonades was also approved.

HISTORY OF THE BRIDGE

Along with the Accademia, Scalzi and Costituzione bridges, Rialto is one of the four bridges crossing Canal Grande and is the oldest and most famous of the four.

The original bridge was made up of a series of boats and was called Quartarolo, the name of the coin used to pay the toll. This was replaced in the twelfth century by the first fixed structure, a bridge designed by the engineer Niccolò Barattieri which was supported by wooden posts. At a later date, the bridge was strengthened and widened by adding two lateral ramps that could be raised to allow boats to pass through and, from then on, it became known as Rialto Bridge, after the area in which it was built, Rivoalto. It was destroyed by fire in 1310 and then rebuilt, only to collapse again in 1444 under the weight of hundreds of spectators watching a boat parade. It was rebuilt again, but this time it was wider and had small stores along its two sides.

Following another collapse in 1524, it was decided to rebuild the bridge us-

ing Istria stone, an ivory coloured material particularly resistant to atmospheric agents and saltwater. After considering other proposals by Palladio, Vignola and Michelangelo, the local authority opted for a design by the Venetian architect, Antonio Da Ponte. Work commenced in 1588 and the bridge was completed three years later. The bridge has a single, 28 m wide span and all its weight is supported by foundations made up of 12,000 elm piles and larch planks which, to this present day, still bear the load of the 24 small stores on the bridge.

A WATER-BASED SITE

Over the years the bridge has been partially restored on several occasions and has also had new piping installed, but there had never been the need for such extensive and significant structural work. An analysis and survey of the bridge was carried out before commencing any work, which highlighted that the structure itself and the foundations were still in good condition, while the balustrade and parapet running along the two sides of the bridge were badly cracked and were in such a critical condition that they were a safety risk for users of the bridge. Also, the walls of the small stores were in poor condition and their external stone masonry facades had become detached from the internal brickwork.

Once the survey and an analysis of the problems had been completed, work got under way in 2015. Scaffolding was erected to create a raised area so that it wouldn't interfere with pedestrians passing over the bridge. The work was divided into separate lots in order to keep the bridge open to pedestrians and work on the pavements, excavation work and the disposal of waste material were mainly concentrated in the night shifts.

The structural work was divided into two

distinct areas, involving the balustrades and the facing walls of the stores. In the first case, the parapets were consolidated by adding duplex stainless-steel mantels and carbon fibre strengthening strips and cords, while for the second area, basalt fibre strengthening cords were used to tie in the stone walls and the brick walls.

The upper face of the bridge was then waterproofed with an elastic membrane to allow for the bridge's slight, natural movements.

Further work was carried out to clean the stones that form the lower face of the arched section of the bridge, the sides of the bridge, the parapets and the so-called Masegni stones – or large blocks of trachyte from the Euganean hills – used to make the pavements of the bridge.

The larger, heavier stones were removed, numbered, cleaned and then stored in a specially prepared site in a nearby square.

The small columns of the balustrades were also removed, numbered and restored. They were then set in place with molten lead and, once the lead had solidified, they were tapped into their final position; the same columns had previously been set in cement, which had caused the damage.

The final step was to remove all the dirt and pollution (layers of biological matter, graffiti and a thick, black crust) which also highlighted how the aggressive cleaning operations carried out in the 1970's had scratched the surface of the Istria stone.

THE RESTORATION PROJECT

The first aspect to take into consideration for the restoration of Rialto Bridge was its historical, architectural, construction and cultural significance, not only for the inhabitants of Venice.

The objective for the design engineers was the restoration, maintenance and arrangement of the entire structure: a conservative and long-lasting intervention which would stop the bridge from deteriorating any further and bring it back to its original look.

Apart from preserving the materials and treatments applied over the centuries to combat wear and tear of the bridge, the aim of the work was to remove all the

deteriorated elements and features, treat them to stop any ongoing deterioration and put them back into their original place, and prevent other forms of deterioration in the materials.

According to the static survey of the bridge, the vaulted roof was found to be compliant with current static safety norms and standards and sufficient to support the design loads.

The readings taken in the small stores showed that minor but effective strengthening work was required by adding a chain at the start point of the arched sections.

MAPEI'S CONTRIBUTION

The maintenance project for Rialto Bridge also involved Mapei Technical Services and the application of various Mapei systems.

To consolidate the balustrades of the bridge parapets, it was recommended to inject them with MAPE-ANTIQUE I in order to strengthen the structure and improve its mechanical strengths.

MAPEROD G pultruded carbon glass fibre bars, characterised by their high tensile strength, were then inserted into the guide holes.

The installation bed for all the steps on the bridge was formed by applying a layer of MAPE-ANTIQUE STRUTTURALE NHL mortar. This is a high-performance mortar for transpirant render and masonry work, based on natural hydraulic lime and Eco-Pozzolan.

This product is classified as GP according to EN 998-1 standards and as G according to EN 998-2 standards.

A layer of MAPE-ANTIQUE STRUTTURALE NHL mortar was also applied on the arches of the bridge and the surface was treated with a coat of PRIMER SN two-component, solvent-free epoxy resin-based primer before applying PURTOP HA two-component polyurea waterproofing membrane by trowel.

This product is part of the PURTOP line of products and features high resistance to chemicals, high elasticity and high tear strength.

For some of the work on the roof of the stores, Mapei Technical Services proposed MAPEPLAN waterproofing membranes by Polyglass, a subsidiary company of Mapei Group.



The joints between the stones immersed in the waters of Canal Grande were pointed by injecting STABILCEM very fluid expanding cementitious binder admixed with MAPEPLAST UW anti-washout powdered admixture that has been specifically developed for underwater concrete. In the areas of pavement that needed to be structurally strengthened, the stone slabs were bonded and sealed with ADESILEX PG2 two-component thixotropic epoxy adhesive for structural bonding.

Rialto Bridge was officially inaugurated last May to coincide with the 57th edition of the Venice Biennale International Architecture Exhibition.



PHOTO 1 and 2. The joints between the stones immersed in the waters of Canal Grande were pointed by injecting STABILCEM binder admixed with MAPEPLAST UW.

PHOTO 3 and 4. A coat of PRIMER SN was applied before using PURTOP HA two-component polyurea membrane.

PHOTO 5. The balustrades of the parapet along the bridge were consolidated by injecting them with MAPE-ANTIQUE I. MAPEROD G pultruded glass fibre rods were then inserted into the guide holes.

PHOTO 6. The stone slabs were bonded with ADESILEX PG2.

IN THE SPOTLIGHT

PURTOP HA

Manually-applied two-component, polyurea waterproofing membrane for small to medium size terraces and flat roofs, and for repairing surfaces waterproofed with hybrid polyurea and/or pure polyurea membranes. It offers excellent tensile strength and tear strength; high static and dynamic crack-bridging capacity, including at low temperatures; elongation capacity of more than 500%, and excellent resistance to alkalis and diluted acid. It requires no reinforcement.



TECHNICAL DATA

Rialto Bridge, Venice (Italy)

Original design: Antonio Da Ponte

Period of construction: 1588-1591

Period of the intervention: 2016-2017

Intervention by Mapei: supplying products for strengthening the balustrades, waterproofing the arcades, preparing the installation bed for the steps, pointing the joints of the stone immersed in water, installing stone slabs

Design: Alberto Chinellato; structural and conservative restoration: Andrea Marascalchi; scientific consultant for restoration: Eugenio Vassallo

Client: Venice City Council

Works direction: Roberto Benvenuti

Contractors: Setten Genesisio, Lares Srl, Lithos Srl

Installation company: Graffito Srl

Mapei coordinators: Pasquale Zaffaroni, Davide Bandera, Giulio Morandini, Mauro Orlando, Michele Orlando, Claudio Azzena, Mapei SpA (Italy)

MAPEI PRODUCTS

Consolidating balustrades: Mape-Antique I, Maperod G

Preparing the installation bed for the steps: Mape-Antique Strutturale NHL

Waterproofing the arcades: Primer SN, Purtop HA

Pointing the joints underwater: Mapeplast UW, Stabilcem

Bonding the stone slabs: Adesilex PG2

POLYGLASS PRODUCTS:

Waterproofing the roofs: Mapeplan membranes

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

THE RIVER PO CAN BE SAILED along from the Adriatic Sea to Piacenza

THE GREAT RIVER
IS COMING BACK
TO LIFE THANKS TO THE
NEW ISOLA SERAFINI LOCK

2018 
**EUROPEAN YEAR
OF CULTURAL
HERITAGE**
#EuropeForCulture

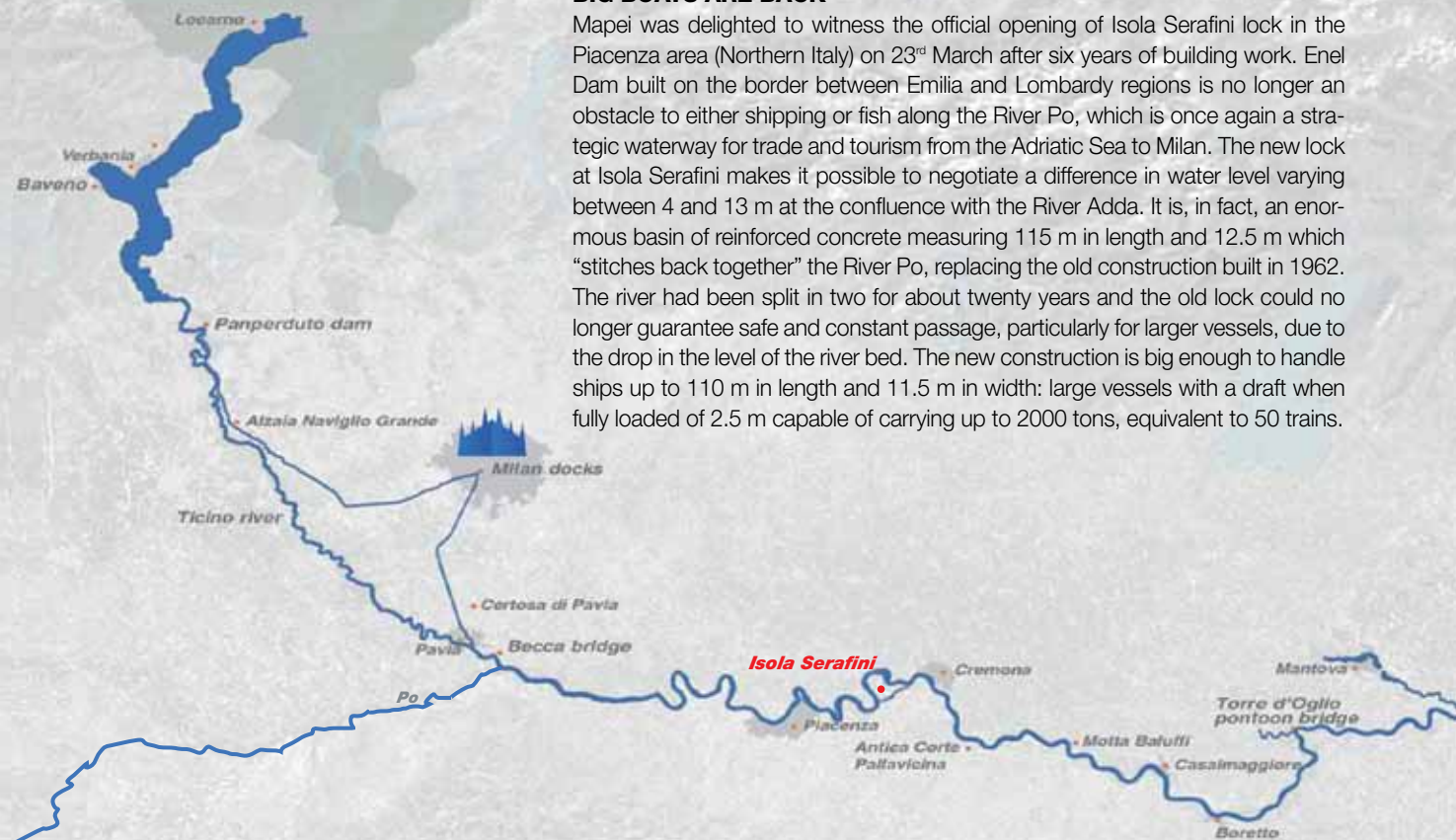
From time to time our magazine takes stock of how building works are progressing on a major construction enterprise currently being completed: the Locarno-Milan-Venice waterway, a navigation link connecting Switzerland to the Adriatic Sea for both tourist and commercial purposes.

Mapei has been constantly monitoring this project, supporting the Istituto per i Navigli - Associazione Amici dei Navigli association. This association, chaired by the architect Empio Malara, pursues its goals through studies and projects concerning possible uses of inland waterways for the purposes of sailing, energy regeneration, fish farming, irrigation, enhancing the environment/monuments, tourism, education and culture. The association's commitment has recently resulted in the Istituto per i Navigli/Associazione Amici dei Navigli being allowed to use the label of the 2018 European Year of Cultural Heritage and the official European slogan "Our heritage: where the past meets the future".

On 12th June the Association also organised a conference entitled "The reopening of the Navigli canals: cultural regeneration, environmental enhancement, and tourist/cultural and public transport potential".

BIG BOATS ARE BACK

Mapei was delighted to witness the official opening of Isola Serafini lock in the Piacenza area (Northern Italy) on 23rd March after six years of building work. Enel Dam built on the border between Emilia and Lombardy regions is no longer an obstacle to either shipping or fish along the River Po, which is once again a strategic waterway for trade and tourism from the Adriatic Sea to Milan. The new lock at Isola Serafini makes it possible to negotiate a difference in water level varying between 4 and 13 m at the confluence with the River Adda. It is, in fact, an enormous basin of reinforced concrete measuring 115 m in length and 12.5 m which "stitches back together" the River Po, replacing the old construction built in 1962. The river had been split in two for about twenty years and the old lock could no longer guarantee safe and constant passage, particularly for larger vessels, due to the drop in the level of the river bed. The new construction is big enough to handle ships up to 110 m in length and 11.5 m in width: large vessels with a draft when fully loaded of 2.5 m capable of carrying up to 2000 tons, equivalent to 50 trains.





A STRATEGIC WATERWAY

The European Commission has included the Po Valley-Venetian waterway system in its TEN-T (Trans-European Transport Network) strategic networks in the Mediterranean Corridor, thanks to the so-called INIWS (Improvement of the Northern Italy Waterway System) project, co-financing 20% of the works in this hydrographic basin through the 2014-2010 Connecting Europe Facilities programme.

In addition to the approximately 7 million Euros from this program, an additional 2.4 million Euros is being allocated by the European Union for the "ConfluPo" project to create a gigantic system for providing a migratory route for fish, so they can swim from the Adriatic Sea to Lake Lugano. This is, more or less, the same route that was reopened for tourists for Expo 2105: a breathtakingly beautiful route along the waterways and bicycle paths from Venice to Milan and then on to Locarno.

The importance of the Isola Serafini plant is confirmed by what the President of the Emilia-Romagna Region, Stefano Bonaccini, had to say. "This work of great strategic value provides further input for boosting the local economy in areas bordering on the waterways of Emilia Romagna along the River Po. It is also a vital means of drawing people into the region and allowing it to grow sustainably". So-called river tourism is also an important asset according to the President of the Emilia region. "The lock will really boost a sector of great potential, thanks to the Emilia Romagna's great artistic/cultural heritage, cuisine and range of wines".

NATURE-RELATED IMPORTANCE

A migratory route for fish has also been created by investing 2.4 million Euros of the overall funds available. This ecological pathway is the biggest in Italy and one of the biggest in Europe, allowing fish to negotiate the barrier posed by Isola Serafini. This has once again opened up migratory routes for rare species, like for example the Adriatic sturgeon, stretching from the Adriatic Sea to Lake Lugano. "It has enormous ecological value", so the Regional Councillor for the Environment, Paola Gazzolo, noted. "Initial monitoring carried out shows that the plant is functioning well. 60,000 fish have already passed through it".



The new Isola Serafini lock, located in the Piacenza area, is big enough to handle ships up to 110 m.

PROJECT FIGURES

47 million Euros

TOTAL COST TO CONSTRUCT THE ISOLA SERAFINI LOCK

6 years

DURATION OF THE WORK

13 meters

MAXIMUM DEPTH OF THE ISOLA SERAFINI LOCK

115 meters

LENGTH OF THE BASIN (ITS WIDTH IS 12.5 M)

110 meters

MAXIMUM LENGTH OF SHIPS THAT CAN PASS THROUGH THE LOCK



The Candoglia marble was excavated in Val d'Ossola and then shipped to Milan along the River Ticino and the Navigli canal system, right up to the Milan Cathedral to build it.



THAT CHANNEL ON CICERO'S RIVER

HIGH PERFORMANCE AND CUTTING-EDGE PRODUCTS USED
TO RESTORE AND WATERPROOF CONCRETE

The source of the River Fibreno, known also as "Cicero's River", are the crystal-clear waters of a lake bearing the same name in the Lago Posta Fibreno Nature Reserve, in the province of Frosinone (Central Italy).

Shortly before leaving the area of Posta Fibreno, the river is joined by a large stream called Rio Carpello, its main tributary in terms of volume of water.

It then flows through the town of Broccostella and, after receiving the waters from a stream called Rio, it reaches Carnello, a village within the confines of Sora, where a natural waterfall is intercepted by a power station and used to generate hydro-electric energy.

The feeder channel for the power station, which was built in the 1950's, has

been completely restored using numerous Mapei products and systems specifically developed to repair and waterproof concrete.

This intervention was carried out in 2017 to stop the progressive deterioration of the concrete that had been used along almost 1,500 m of the channel.

The intervention also provided the opportunity to solve the problem of water infiltrations and to give a new lease of life to a structure that is now waterproof and resistant to aggressive sulphates.

The preliminary operations included preparing the substrates by removing all the damaged and loose concrete, with particular care taken in the preparation of the surfaces around the reinforcement rods.

The next step was to treat all the reinforcement rods left exposed by brush-applying two coats of MAPEFER 1K one-component, corrosion-inhibiting cementitious mortar to form a layer at least 2 mm thick.

ANCHORING THE TURBINE AND TREATING THE WALLS AND BASE OF THE CHANNEL

After this important preliminary phase, which also included anchoring the new turbine for the power station in place with MAPEFILL MF 610, an expansive grout specific for anchoring heavy equipment, the walls and base of the channel were treated with a structural mortar specifically designed for application by spray.



The channel of the hydro-electric power station near Sora (Central Italy) was lately renovated using several Mapei products for concrete repair and waterproofing.

mixed with MAPECURE SRA, a curing admixture with the ability to reduce hydraulic shrinkage and the formation of micro-cracks, at a rate of 0.25% by weight of the mortar.

MAPEFOAM closed cell polyethylene foam was placed along the bottom of the expansion and contraction joints and, after coating the sides of the joints with PRIMER A, the joints were sealed with MAPEFLEX PU45 FT one-com-

ponent, thixotropic polyurethane sealant and adhesive and with MAPEFLEX BLACKFILL one-component, flexible bitumen sealant.

TRANSVERSAL BEAMS AND UNDERSIDE OF THE BRIDGE

After removing all the damaged and loose concrete from the transversal beams and the underside of the bridge and then carefully saturating the substrate, these areas were also restored with MAPEGROUT EASY FLOW admixed with MAPECURE SRA.

In the areas where the thickness to be replaced was 2 cm or less, the concrete was repaired with MAPEGROUT LM2K two-component, thixotropic, fibre-reinforced, cementitious mortar with a low-modulus of elasticity and added organic corrosion inhibitor, applied in a single layer at a thickness of from 3 to 20 mm.

It is worth pointing out that MAPEGROUT LM2K bonds perfectly to both old concrete, as long as it has been wetted beforehand with water, and to steel reinforcement, particularly when treated with MAPEFER 1K, as it was the case in this project.

All the surfaces were then smoothed with MAPEFINISH, a two-component cementitious mortar specifically formulated for finishing off the surface of concrete which, once hardened, forms a compact, tough layer resistant to water and atmospheric agents.

IN THE SPOTLIGHT MAPEGROUT EASY FLOW

It is a one-component sulphate-resistant, fibre-reinforced, shrinkage-compensated, thixotropic mortar especially suitable for repairing concrete structures by using a spray rendering machine.

It is used for the repair of highway viaduct pillars, hydraulic works, road and railway tunnels, and precast concrete structures. It is especially suitable when easy pumping is required even over long distances and under constant high heads.



In the areas where the thickness to be integrated was more than 3 cm, new reinforcement was added and fastened in place with L-shaped connectors, which were anchored to the existing concrete substrate with MAPEFIX VE SF chemical styrene-free vinylester anchor, specific for structural loads and construction bars.

Taking into consideration the layout of the existing joints in the channel, the concrete was integrated by spray-applying MAPEGROUT EASY FLOW one-component, fibre-reinforced, compensated-shrinkage, sulphate-resistant, thixotropic structural mortar with a worm-screw feed rendering machine. MAPEGROUT EASY FLOW, which also contains corrosion inhibitors, was



PHOTO 1. Reinforcement rods were treated with MAPEFER 1K cementitious mortar.

PHOTOS 2 and 3. Damaged concrete areas were repaired with MAPEGROUT EASY FLOW, fibre-reinforced, thixotropic structural mortar, admixed with MAPECURE SRA.

RESTORING THE STRUCTURAL JOINTS IN THE CHANNEL

Once the damaged areas on the base and the sides of the channel and those around the edges of the joints had been restored, all the loose material was removed from these surfaces.

MAPEFOAM was then placed along the bottom of the joints to gauge the correct thickness. The sides of the concrete joints were treated with PRIMER M, a one-component, solvent-free primer for polyurethane sealants, and filled with MAPEFLEX PU 45 FT sealant.

Once MAPEFLEX PU 45 FT was fully cured, MAPEBAND FLEX ROLL flexible waterproofing tape was applied over the joints to ensure a higher degree of impermeability. Once all these operations had been carried out, MAPEBAND TPE tape, specific for flexible sealing and waterproofing of expansion joints subject to movements, was bonded in place with ADESILEX PG4 two-component, thixotropic epoxy adhesive. To guarantee a longer service life for the entire waterproofing system, it was then protected with metal flashing wide enough to cover the MAPEBAND TPE tape, which was anchored in place on one side of the joint and, on the other side, fastened through slots to allow for any movements in the structure.



TECHNICAL DATA

Feeder channel of the Carnello hydro-electric power station, Sora (Italy)

Year of construction: 1955

Year of the Mapei intervention: 2017

Intervention by Mapei:

supplying products for anchoring turbines and repairing and waterproofing concrete surfaces

Client: C.E.I. - Compagnia Elettrica Italiana Srl (Italian Electric Company)

Design: C.E.I. Compagnia Elettrica Italiana Srl

Works direction: Arnaldo Angelini, Vincenzo Vespasiani

Main contractor: Di Palma Mario Srl

Contractor for joint repairs: L.P. Costruzioni Srl
Mapei coordinators:

Fabrizio Caravello and Federico Laino, Mapei SpA (Italy)

MAPEI PRODUCTS

Repairing reinforcement rods and anchoring: Mapefer 1K, Mapefill MF 610, Mapefix VE SF

Concrete repair: Mapegrout Thixotropic, Mapegrout Easy Flow, Mapecure SRA, Mapegrout LM2K

Sealing and waterproofing joints: Mapefoam, Mapeflex PU 45 FT, Mapeflex Blackfill, Adesilex PG 4, Mapeband Flexroll, Mapeband TPE, Primer A
Smoothing concrete surfaces: Mapefinish

For further information on products visit www.mapei.com

SYSTEMS AND MATERIALS FOR **REPAIRING, SKIMMING AND PROTECTING CONCRETE**



A durable, sustainable structure can only be achieved by thinking in terms of systems rather than products, which is why, year in year out, **the building line by Mapei** is extended by introducing new, cutting-edge systems and materials with the aim of supplying **solutions for every type of problem encountered on site.**

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







VILLA SOLIGON in Santa Lucia di Piave

CUTTING-EDGE SOLUTIONS OFFERING THE
MAXIMUM FREEDOM FOR THE DESIGN OF THIS
VILLA LOCATED ON THE VENETIAN PLAIN

For the Mapei technicians and engineers, it is vitally important they work alongside designers and provide their support during both the initial delicate phase of drawing up the building specifications, and then again when work is being carried out on site.

A concrete example of this collaboration was the relationship they built up with the architect Erich Milanese, owner of the Milanese Architects Office design studio, who worked on the design and construction of a residential villa in Santa Lucia di Piave, not far from Treviso (Northern Italy). One of the aims of the design was to keep the ridges of the roof perfectly in line with the flow of the outside walls – made up of a mix of external insulation and pre-cast blocks with cut-outs – so that the entire roof/wall assembly would form a kind of “uniform box”.

One of the first decisions was to reject the idea of waterproofing the structure with a polyurea membrane because, with this type of solution, that “natural consistency” the designers were striving to achieve would not have been guaranteed.

Following a thorough analysis of the structure and after taking on board the precise indications of the designer, Mapei supplied the most appropriate and best performing product systems for the various work cycles as and when they were required.

THE ROOF OF THE VILLA

The roof of the villa is made up of ribbed metal sheets. Once the concrete cap had been completed, it was waterproofed with a coat of self-adhesive bituminous membrane, then a layer of insulating panels was placed thereupon before casting a final pour of concrete which was 20 cm thick.

For this type of substrate, application of the Mapei product system began with

sanding down the existing concrete substrate and then applying a coat of PRIMER 3296 diluted 1:1 with water. For the actual waterproofing layer, the product chosen was MAPELASTIC SMART two-component, high-flexibility cementitious mortar. To improve its elongation and crack-bridging properties, MAPETEX SEL macro-holed, non-woven polypropylene fabric, specifically designed to reinforce waterproofing membranes, was embedded in the MAPELASTIC SMART layer. Once the surfaces of the roof had been treated as above, they were painted and protected with ELASTOCOLOR WATER-PROOF flexible acrylic resin-based paint in water dispersion.

Particular care was taken around the fillet joints between the steel guttering and the roof and between the dormer windows and the vents on the roof.

The best results were obtained by sanding down all the metal elements and fittings and applying a coat of EPORIP two-component, solvent-free epoxy adhesive. Then, after broadcasting the surface with QUARTZ 1.2 sand, the waterproofing cycle for the roof was applied as described above.

EXTERNAL THERMAL INSULATION

The external insulation for the walls was made up of 14 cm thick MAPETHERM EPS expanded polystyrene insulating panels and MAPETHERM AR1 GG one-component, coarse-textured cementitious mortar.

The surfaces were skimmed over with MAPETHERM AR1 GG, reinforced with MAPENET 150 alkali-resistant, glass fibre mesh embedded in the mortar.

A further skim coat was provided by applying MAPETHERM FLEX RP cement-free, fibre-reinforced, elastic, lightweight skimming paste and base coat.

To improve its resistance to the stresses





3



6

PHOTO 1. The roof of the building was waterproofed with MAPELASTIC SMART reinforced with MAPETEX SEL non-woven fabric.

PHOTO 2. The roof was painted and protected with ELASTOCOLOR WATERPROOF paint.

PHOTO 3. Particular care was taken around the fillet joints between the steel guttering and the roof.

PHOTO 4. A thermal insulation system was completed by bonding the MAPETHERM EPS expanded polystyrene panels with MAPETHERM AR1 GG cementitious mortar.

PHOTO 5. The ceramic floor tiles for the loggia and internal areas were installed with KERAFLEX MAXI S1 adhesive.

PHOTO 6. View of the roof after completion of the works.

caused by temperature variations and small movements, ELASTOCOLOR NET alkali-resistant, glass fibre mesh was embedded in the skim coat.

Once this cycle had been completed, the surfaces were finished off by applying a coat of ELASTOCOLOR WATERPROOF.

FOOTPATHS AND INTERNAL FLOORING

The footpaths outside the villa and the external areas of the building were waterproofed with MAPELASTIC TURBO two-component, rapid-drying, elastic cementitious mortar, reinforced with MAPENET 150 glass fibre mesh embedded in the mortar.

MAPEBAND SA alkali-resistant, self-adhesive, butyl tape with non-woven fabric backing was used to protect all the fillet joints.

The 30x60 cm ceramic floor tiles for the loggia and internal areas were installed with white KERAFLEX MAXI S1 high-performance, deformable, cementitious adhesive with extended open time and no vertical slip, excellent workability and Low Dust technology, particularly recommended for installing large-size porcelain tiles and natural stone slabs.

The 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.

And lastly, MAPESIL AC pure, mould-resistant acetic silicone sealant with BioBlock® technology was used to seal the expansion joints.

IN THE SPOTLIGHT

MAPETHERM FLEX RP

Cement-free, fibre-reinforced, lightweight, elastic, skimming paste and base coat resistant to biological agents for internal and external use. It is used for renovating damaged/deteriorated insulating systems; repairing cracked walls on all types of buildings; repairing render to even out surface defects. It is particularly recommended for protecting areas open to the public exposed to impact and stresses. It adheres perfectly to all types of insulating panels, skimming mortars, traditional render and old, well-adhered paintwork. It also provides excellent resistance to impact loads and may be tinted using the ColorMap® automatic colouring system.



TECHNICAL DATA

Villa Soligon, Santa Lucia di Piave (Italy)

Period of construction: 2016-2017

Period of the Mapei Intervention: 2016-2017

Client: Alberto Soligon

Design: Erich Milanese, Milanese Architects Office Srl

Main contractor: Impresa Edile Cardazzo Cav. Ermenegildo Srl

Thermal insulation contractor: Graffito Srl

Ceramic installation and waterproofing contractor: Pietro De Spirit

Mapei distributor: Simonetti Giuseppe & C. Srl

Mapei coordinators: Sonia Murer, Cristiano Bordinon, Rudi Crosato and Mauro Orlando, Mapei SpA (Italy)

MAPEI PRODUCTS

Waterproofing the roof and the walking path: Eporip, Mapeband SA, Mapelastic Smart, Primer 3296, Elastocolor Waterproof, Mapelastic Turbo, Mapeband, Mapenet 150, Quartz 1.2
Thermal insulation system: Mapetherm AR1 GG, Mapetherm EPS, Mapetherm Flex RP, Elastocolor Net
Installing ceramic tiles, grouting joints, and sealing expansion joints: Keraflex Maxi S1, Ultracolor Plus, Mapesil AC

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

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Traditional levelling mortar

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HIGH IMPACT
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Mapetherm Flex RP is a **ready-mixed, cement-free, mould and algae resistant skim coat**. It features **high impact resistance** and it can also be used for **repairing deteriorated thermal insulation systems**.

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





INTERVIEW WITH THE
ARCHITECT ERICH
MILANESE, OWNER
OF MILANESE ARCHITECTS
STUDIO AND DESIGNER
OF VILLA SOLIGON

Your relationship as an architect with the environment, functional design and simplicity transpires from the design of Villa Soligon. Are these key words in your approach to design?

I would say so, yes. Simplicity in architecture is a point of arrival and you reach that point by abstraction once you have understood the complexity of a design. For our studio – and for me in particular – you start from an idea and study it right down to the tiniest detail, and then “undress” it of everything we consider to be superfluous. Attention to detail is at the base of all our designs. Anyway, for us simplicity and abstraction in a design are essential starting points and you can also notice this with Villa Soligon. In this case the basis for the concept was a typical Renaissance period house in the Venetian countryside. Then we gradually went through a process of elimination until we reached a point where the architecture was steeped in its typical features, but in a more minimalistic way.

In this project the overriding idea is that of architecture of quality, which is then further emphasised by the products used. Do good architecture and quality products get noticed by the client?

For a designer, first and foremost, it is very important to find a client with culture who understands all the various facets of a design. A good understanding between the designer and the client has always been the foundation for the chance

WHEN CHOOSING THE RIGHT MATERIALS MAKES ALL THE DIFFERENCE

to produce an optimal design. It is an investment for both the person who commissions the work and for the person who actually designs it. This also means sensitivity on the client's part for architecture and materials that differ from those traditionally used, as in the case of Villa Soligon. In this specific case, we started from zero and, provocatively, opted for a monochrome material. The client managed to understand and fully appreciate why we chose these materials.

What is the relationship between the designer and the contractor when choosing construction materials? And between the designer and the client?

This is a subject that torments every designer. The relationship between an architect and a contractor is often conflictual when deciding which materials to use. I believe, however, that in the case of this project there was a really good understanding between the designer, the client and the contractor, who initially was rather perplexed at the thought of using certain materials. To be quite honest, it was the first time the contractor chosen for the job found themselves having to work on such a minimalistic yet detailed structure. They did, however, comply with all our requests, and even carried out improvements on a technical-design level that enabled us to achieve a really excellent result.

You worked very closely with Mapei Technical Services. What do you think about this experience?

I firmly believe that every architect needs to work with technicians who are specialised in their particular sector. In this case we worked with Mapei Technical Services and we created an excellent understanding with them. Right from the embryonic phase, when the idea for the design was coming together, they managed to advise us, understanding the complexity of the design and by studying each single feature.

I think I would like to repeat the experience because I believe that a good understanding and working in harmony makes you better equipped to tackle every new design challenge.

When working directly on site with, in this case, the people who actually make the products, is your approach to design different from your usual approach?

We always deal with design in the same precise manner and, right from the start, we contact technicians so we can tackle the problems a design throws up in the best way possible. This allows the contractors to handle issues to the best of their ability, fully aware of the result we want to obtain. Works management is extremely important but it must not be replaced by the executive phase of the project which, the more detailed it is, the more likely you will have a good result. In this case Mapei Technical Services followed us after the design phase, proposing various solutions; not necessarily regarding the materials, but rather with regards to their application and the problems that could arise. For example, they advised us on the most suitable time to build the roof; it didn't have to be either too hot or too cold.

We have had such a close relationship with Mapei Technical Services, because in this case the project required it. In the end, the entire shell of Villa Soligon, the façade and the roof, was made using Mapei products. We often use Mapei products on site but this was the first time we have worked so closely with Technical Services, especially like in this particular case where we followed both the design phase and the site phase.

We were the ones who contacted Mapei to get more information on the issue of polyurea and from there we started collaborating with the technician covering this area. For the roof we had already narrowed it down to two products: one from Mapei and the other from a foreign company. We chose the Mapei product thanks also to the technician who was always there to help on site, which made the difference with the other product. Even though, right from the very start, the Mapei product had better characteristics and offered better performance than the competitor's product, such as higher elasticity, it was by no means easy to cover 600 m² of roof without a crease and, in the end, the Mapei product proved to be the best.



MEDIAWORLD STORE in Brindisi

LEADING PRODUCTS
FOR THE PREPARATION
OF SUBSTRATES AND
INSTALLATION OF LVT
FLOORINGS

In the spring of 2016 MediaWorld, a store that sells electronic goods, household appliances, computers and telephones, opened a new outlet in the BrinPark Commercial Park in Brindisi (Southern Italy).

With more than 1,000 megastores, Media-Saturn-Holding GmbH is the leading chain of retail outlets for electronic goods in Europe. It trades in Italy under the MediaWorld banner and has 115 stores located all around the country.

Mapei products played their part in the

perfect installation of LVT (Luxury Vinyl Tiles) flooring in the Brindisi store, which has a surface area of more than 2,200 m² and was developed according to the new corporate design adopted for MediaWorld sales points. The store includes innovative areas such as those dedicated to virtual reality, urban mobility and large-screen TVs, where clients can discover the latest technology available. There is also a Smart Bar available for the clients so they can arrange assistance and support for the products purchased.



SUBSTRATE PREPARATION

Vinyl flooring has always been highly appreciated for its flexibility, sound-proofing properties, resistance to water and its antibacterial and non-slip properties. The latest LVT floorings still maintain these qualities over the years, but their surface also offers a higher level of resistance and more natural finishes in wood, stone and minerals.

And it was precisely this material that was installed over a total surface area of around 2,000 m² in the MediaWorld



The Media World store in Brindisi encloses LVT (Luxury Vinyl Tile) floors installed with Mapei products.

store in Brindisi, by the Matera Giuseppe Srl company from Modugno, in the Province of Bari.

Before installing the flooring, the existing substrate (an unbonded concrete screed around 10 cm thick) was inspected on site by a team of Mapei technicians working in conjunction with Mapei Technical Services.

To check the substrate's suitability, its residual moisture content was measured in three different areas of the surface using a carbide hygrometer. After registering values of more than 2% - the maximum permitted value for installing resilient flooring on cementitious substrates according to Italian standard UNI 11515 - it was decided to carry out a targeted intervention to prepare the substrate using specific products.

After further checking the substrate to verify its mechanical properties, compactness and thickness, and to see if there were any cracks present, work got under way to seal the cracks found with EPORIP two-component, solvent-free epoxy adhesive.

INSTALLATION OF LVT FLOORING

After completing the preliminary repair work, two criss-cross coats of TRIBLOCK P epoxy-cementitious primer were applied, a product used to waterproof damp substrates.

TRIBLOCK P reticulates on damp surfaces, even if they are very smooth, and forms a compact layer suitable for installing wooden, PVC, linoleum, ceramic, epoxy and polyurethane flooring and for applying cementitious smooth-

ing compounds.

24 hours after applying the primer, the surfaces were smoothed over with PLANEX HR, a self-levelling, rapid-drying, moisture-resistant, smoothing mortar which may be applied in layers from 1 to 10 mm thick.

Around 24/48 hours after applying the smoothing compound, the LVT flooring was installed using ULTRABOND

IN THE SPOTLIGHT

PLANEX HR

Rapid-drying, self-levelling smoothing mortar for layers 1 to 10 mm thick.

PLANEX HR is suitable for internal and external applications to make substrates suitable for laying all types of floor covering, including resilient and textile. It is particularly recommended for use in areas where high resistance to static and dynamic loads is required. Thanks to its good resistance to moisture, PLANEX HR may also be used for external applications or on substrates that are not completely dry or which have a high level of residual moisture.

Smoothing layers of PLANEX HR are classified as **CT-C25-F6-A1_s-s1** in compliance with **EN 13813** standard.





PHOTO 1. Before bonding the floor covering, TRIBLOCK P epoxy-cementitious primer was applied on the substrates.

PHOTO 2. After applying the primer, the surfaces were smoothed with the self-levelling smoothing mortar PLANEX HR.

PHOTO 3. LVT coverings were bonded onto the floors with ULTRABOND ECO 4 LTV, an adhesive especially developed for this type of floors.



ECO 4 LVT, a fibre-reinforced adhesive specific for this type of material, which guarantees excellent performance characteristics in terms of adhesion and dimensional stability.

ULTRABOND ECO 4 LVT contains fibres and is characterised by its strong, rapid initial grab and a rapid set. It forms a final film which remains rigid and cohesive, giving flooring excellent dimen-

sional stability. It is particularly recommended for surfaces subject to heavy wear use in residential, commercial and industrial surroundings.

For a place where technology plays a leading role, resilient flooring of the latest generation was installed using specific Mapei products developed to meet the requirements of even the smallest detail on site.

TECHNICAL DATA

MediaWorld, Brindisi (Italy)

Year of construction: 2016

Year of the intervention: 2016

Intervention by Mapei:

supplying products to prepare substrates and install LVT

floorings

Client: Mediamarket SpA

Works direction: Studio Tecnat

Main contractor: UPM Modena SpA

Installation company: Matera Giuseppe Srl

Mapei distributor: Matera

Giuseppe Srl

Mapei coordinators:

Michelangelo Occhiogrosso, Danilo De Matteis, Achille Carcagni, and Alessandro De Luca, Mapei SpA (Italy)

MAPEI PRODUCTS

Preparing substrates: Eporip,

Triblock P, Planex HR

Installing LVT floorings:

Ultrapond Eco 4 LTV

For further information visit www.mapei.com

FOR THE **INSTALLATION OF LVT** IN COMMERCIAL SURROUNDINGS

Ultrabond®ECO **4 LVT**



EXCELLENT
TROWELABILITY



LOW EMISSION
OF VOC



SOLVENT-FREE



Fibre-reinforced **adhesive** developed specifically **for installing LVT (Luxury Vinyl Tile)** flooring. **Ultrabond®ECO 4 LVT** guarantees excellent performance characteristics in terms of adhesion and dimensional stability. Recommended for intense loads, including in commercial surroundings.

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





AN INDUSTRIAL BUILDING in Grugliasco

UPGRADING THE ENERGY EFFICIENCY AND REFURBISHING THE WATERPROOFING SYSTEMS ON ROOF

An interesting intervention was carried out to renovate the roof of an industrial building in Grugliasco (Province of Turin, Northern Italy) and upgrade its energy efficiency. MAPEPLAN T M flexible polyolefin waterproofing membrane proved to be highly effective and has enabled the roof to be renovated by installing a more modern and efficient system.

THE CONDITION OF THE ROOF

The building in question is several decades old and, when it was purchased, the intention of the new owner was to upgrade it to make it more up to date and functional.

Renovation of the roof of the building was a strategically important part of the project.

The building itself has an area of around 4,500 m² and is made from precast, reinforced concrete elements. Its original waterproofing system was made up of

two polymer-bitumen membranes with the upper membrane coated with aluminium foil.

The roof had already been refurbished by installing 20 mm thick polyurethane insulating panels and a PVC-P waterproof membrane over the original polymer-bitumen membrane. The panels were installed dry and had a 15 cm thick layer of loose, expanded clay aggregates over them to act as ballast.

The aims and requirements of the refurbishment and upgrading work were very clearly specified, enabling the client, along with the Polygalss Technical Services Department, to identify the key phases of the project:

- removal of the layer of expanded clay ballast;
- refurbishment of the waterproof membrane by installing a more durable system with a longer service life;
- to have a more modern and upgraded



PHOTO 1. Condition of the roof prior to the upgrade.

PHOTO 2. The new skylights covered with MAPEPLAN T M membranes.

roof from an energy point of view to bring it in line with current best practices regarding energy savings and comfort in winter and summer;

- to raise the skylights on the roof to prevent any risk from heavy snowfall;
- to equip the building with a cutting-edge, modern roof with advanced ecological characteristics in order to increase the value of the entire building and then maintain its value over the years.



PHOTO 3. Laying and fastening MAPEPLAN T M membrane in place.



PHOTO 4. Heat-welding the overlaps in the membrane with hot air.



PHOTO 5. An expansion joint in the roof.

PHOTO 6. A view of the “cool roof” completed with MAPEPLAN T M.

PHOTO 7. A view of the MAPEPLAN T walkway for foot access.



RENOVATION OF THE ROOF

The roof was refurbished by installing a “cool roof” system with a dry-laid MAPEPLAN T M flexible polyolefin membrane anchored to the load-bearing structure with induction welded fasteners.

The first step was to remove the expanded clay ballast and the various layers of the more recent insulating and waterproofing system to expose the building's original bitumen waterproofing membrane. This was then repaired where necessary and left on the roof, but in this case to act as a vapour barrier.

The next step was to remove the skylights and the mounts for the skylights and replace them with new ones. These were compliant with current thermal insulation standards and the mounts were also taller so that the skylights would sit proud of any snowfall. Then, the original bitumen membrane was fastened around the new mounts and skylights to prevent anything accidentally leaking in while the work was being carried out and the MAPEPLAN T M waterproofing membrane and a series of small domes were installed on the roof.

The next step was to install the thermal insulation panels, in this case 120 mm thick EPS 200 kPa, which were anchored to the substrate with the same type of induction-welding fasteners as the ones used to fasten the 2 mm thick MAPEPLAN T M flexible polyolefin membrane in place. The membrane was

dry-laid and left exposed and this too was fastened to the substrate using the induction-welding system. The last step was to heat-weld all the overlaps and joints to form a perfect, seamless layer impermeable to both water and snow.

The mechanical fastening system for the new waterproof membrane was calculated and designed by the Polyglass Technical Services Department. The calculations were made in compliance with the specifications of EUROCODE 1-4 and current norms and standards and were based on the actual conformity of the roof and factored in both the effect of wind lift and adequate safety coefficients.

ADVANTAGES AND CHARACTERISTICS OF THE MAPEPLAN T M SYSTEM

The MAPEPLAN T M waterproofing system used in this case has excellent characteristics and performance properties. It ensures an upgraded and modern roof with improved energy performance characteristics and sufficient thermal resistance to combat heat loss during the winter, correct according to thermal-hygrometric considerations and with no risk of condensation forming on the surface or in the gaps and spaces.

In summer, including when exposed to direct sunlight, the high-solar reflectance “Smart White” finish of MAPEPLAN T M guarantees that the membrane has a low surface temperature and, as a re-

sult, there are more comfortable conditions inside the building, less energy is required to cool the building and running costs are much lower. Thanks to this intervention, the building now has a modern and efficient “cool roof”.

The waterproofing system is a “seamless” layer welded together with hot air to remain functional and durable over the years. MAPEPLAN T M waterproofing membranes have a long life expectancy and are highly ecological, as indicated by the product EPD (Environmental Product Declaration) certified by an accredited certification body.

Apart from the advantages mentioned previously, it is also easy to maintain and only requires regular cleaning and inspection of the drainage points and the flashing around the edge and sealing with silicone mastic.

TECHNICAL DATA

Industrial building, Grugliasco (Italy)

Year of the intervention: 2017

Intervention by Polyglass: supplying products to rebuild and upgrade the roof

Client: SIF SpA

Contractor: Borgatta Emilio

Polyglass coordinators: Mauro Redemagni (Head of Technical Services), Cristian Spinazzé (Area Manager)

POLYGLASS PRODUCT

MAPEPLAN T M

For further information see www.polyglass.com



The speech given by Paolo Lamberti, President of Federchimica.

THE ITALIAN CHEMICAL INDUSTRY: a strategic sector with a European perspective

THE SECTOR IS PERFORMING WELL WITH EXPORTS CONTINUING TO GROW (+4.2%)

"The Italian chemical industry is lively, solid, offers quality jobs and invests much more in innovation and welfare than any other Italian manufacturing industry. It is a sector that can give a lot to the country: we are ready to work closely with the new government as it sets about the tricky task of reconciling individual and collective interests for the common good".

This is what Paolo Lamberti, the President of Federchimica (the Italian Federation of Chemical Industry), had to say at the association's Annual Assembly held in Milan on 4th June. Among those who gave speeches were: Vincenzo Boccia, President of Confindustria (the Confederation of Italian manufacturing and service companies); Emma Marcegaglia, President of Business-Europe; and Antonio Tajani, President of the European Parliament. The Italian chemical industry is valued at 55 billion

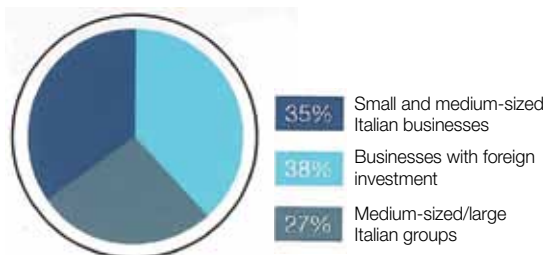
Euros, 30 billion of which comes from exports, with Europe accounting for over 61% of this figure.

The positive trend in the industry (approximately +2%) also includes exports (+4.2%) that have performed even better than in 2017.

THE HIGH STANDARD OF THE ITALIAN CHEMICALS

Nevertheless, it is quality that makes Italian chemical industry (the third biggest European manufacturer and ninth in the world rankings) such an extremely important and attractive industry: "We are now at the very forefront of Italian manufacturing" - so Mr Lamberti went on to say. "This is shown by the facts and figures: the Italian National Institute of Statistics (ISTAT) rates us as one of the three leading sectors in its Competitiveness

Distribution of chemical production in Italy (%, 2017)



N.B. Medium-sized/large Italian groups are defined as having global sales of over 100 million Euros

Source: Federchimica

The chemical industry in Italy in 2016/2017 (billions of Euros)

Chemicals	2016	2017	Variation
Production	51.9	55.3	+6.6%
Internal demand	59.1	62.4	+5.7%
Imports	34.7	37.1	+7.0%
Exports	27.5	30.0	+9.0%
Skilled workers	-7.2	-7.1	+0.1
Employees (thousands)	106.9	107.5	+0.6%

Source: Federchimica and Istat (Italian National Institute of Statistics).

Index, which calculates potential growth in the midterm on the global market or, in other words, the possibility of providing quality employment”.

“The statistics on non-performing loans (4% compared to an average of 20%) makes us easily the most virtuous industry, although they do highlight the difficulties our companies have with their own clients”.

GOOD RESULTS IN 2017

An eloquent picture of the situation comes from the facts and figures regarding foreign chemical industries operating in Italy: they generate income of almost 20 billion Euros (equivalent to such key sectors as the furniture or drinks industries), approximately 60% of which is exported, thanks partly to considerable investment in research (over 170 million Euros).

“These are businesses that come to Italy to manufacture, carry out research, offer employment and, in many instances, set up genuine centres of excellence”, so Paolo Lamberti noted.

“These fine results come from our focus on the global market, with export figures that are higher than the European average; they may also be attributed to innovation increasingly based on research and spread around so many small and medium-sized businesses; lots of graduates are being employed, now almost 30% of new recruits, 10% higher than the national average; there is also plenty of in-house training that focuses on people”. Nevertheless, according to the President of the Italian Federation of Chemical Industry, a number of aspects are emerging that will closely affect the world of industry and are a source of concern.

HOW TO KEEP ON GROWING

What does the Italian chemical industry need to attract new investment and continue along the path of growth it has so decisively taken over the last few years?

According to Mr Lamberti, it needs to overcome those age-old negative factors that have always afflicted industry and the chemicals industry in particular: the slowness of authorisation processes (“in other countries this takes just a few months,

here in Italy over five years.”); its intricate legal framework that generates uncertainty, particularly when decisions are more often made on a wave of emotion than based on scientific data; rules and regulations that still need to be simplified to speed up the administration process and authorisation procedures.

President Lamberti pointed out the key role institutions play in pursuing sustainability, underlining the fact that “after decades of progress in terms of environmental culture Italy needs a more ‘yeah-saying kind of environmentalism’, i.e. Institutions that are willing to say yes and not just no”. “Real sustainability - according to Mr Lamberti - is constructed through the joint efforts of Institutions and businesses, making complex investments that pay off in the long

term that can be set in place quickly and effectively”.

EUROPE AS A HORIZON NOT A BOUNDARY

The Italian chemical industry would certainly like to keep operating within a European framework “which, for us, is a horizon not a boundary: closing borders, reorganising customs, returning to a national currency and blocking intra-community trade through miscellaneous old tricks and artifices is unthinkable”. “It is in everybody’s interest - so the President of the Italian Federation of the Chemical Industry added - to keep manufacturing in Europe and not transfer it to areas where safety, health and the environment are less protected”.

That is because, so Mr Lamberti noted, “over the years the European Union has adopted the strictest standards for regulating chemicals in the world: European citizens should be aware of this and feel more protected here than elsewhere”.

Nevertheless, European rules and regulations must not protect just health and the environment, they should also safeguard businesses that have invested huge resources in conforming to them and demonstrating that their products are both safe and valid.

“We need more Europe, although, of course, a better kind of Europe: we would like to see a more positive attitude in this respect and our industry, so strategic for the manufacturing industry and our entire economic system in general, has plenty to offer through its great vitality”, so Mr Lamberti concluded.

» **LAMBERTI:**
**“WE NEED TO
OVERCOME
THOSE NEGATIVE
FACTORS FOR
INDUSTRY, SUCH
AS THE LENGTH
OF AUTHORISATION
PROCEDURES”**

THE SUBURBS

The challenge of the cities of the future

*TEN, ONE HUNDRED,
A THOUSAND CENTRES: THE
FIRST NATIONAL CONFERENCE
IN ITALY ON THE SUBURBS*

"Ten, One Hundred, a Thousand Centres": is the title of the first Italian national conference on our suburbs held on 20th June at the Cariplo Foundation Conference Centre in Milan. The event was organised by the Bracco Foundation in partnership with Milan City Council, the Cariplo Foundation, and SC-Sviluppo Chimica, a service company owned by Federchimica, the Italian Federation of the Chemical Industry.

Starting from what has happened in Milan, a series of success stories were focused on to help tackle an issue, which, over recent years, has been increasingly at the centre of attention for local administrations, non-profit organisations, private foundations and businesses: the idea was to identify successful means of regenerating places and communities in marginal locations in the firm belief that the only way to really grow is to grow together.

At the opening of the conference's proceedings, the Mayor of Milan, **Giuseppe Sala**, described the issue of suburbs as "deeply political" because "now more than ever, politics means dealing with city suburbs, and this is a priority for Milan, too; for a long time, in fact too long, urban development has focused solely on small areas benefiting from major investment and projects that has allowed them to grow and redevelop". "Our suburban neighbourhoods have houses in need of renovation, spaces to be redeveloped – so Mr Sala commented – and people who need to be given definite answers as soon as possible. We are committing plenty of resources and projects to achieve these goals".

Diana Bracco, President of the Bracco Foundation, began her speech by quoting Renzo Piano "who has taught us that our often dilapidated suburbs are the city of the future, the city as it is destined to be, the legacy we will leave for our children. The challenge is to make them part of the city, enhancing their beauty and the energy they contain". "We should all be aware that if we

do not take action on the urban fabric of our suburbs, - so Ms. Bracco went on to say - these problems will get dramatically worse, as we can see from what has recently happened in so many big European cities. By taking preventive and inclusive action, we will create a more welcoming environment and more opportunities, not to mention the benefits we will reap on a human/economic level".

It may well be true that "Milan has become a sexy city", so **Sergio Urbani**, the Secretary General of the Cariplo Foundation, pointed out, but there are also "plenty of areas requiring new paradigms, more and more of them in the suburbs in particular". Suburbs which, as Mr. Urbani emphasised "have great untapped potential that we hope to bring to the fore through the Lacit-taintorno project. The watchword in this case is Community."

» **THE ONLY WAY
TO REALLY
GROW IS TO
GROW TOGETHER**

Taking German cities as an example, **Andreas Krüger** from Belius GmbH in Berlin focused his speech on those major cities now requiring brand-new social-spatial strategies. As he pointed out: "Today the whole of Europe is talking about the challenge of integration and the lack of solutions for people who have come or are now coming over here. The situation calls for a new plan for implementing all the measures required to guarantee a peaceful society, freedom, a safe life and financial well-being [...]. There are rumours going around that would have us believe we will never be able to come manage this situation successfully and that failure is inevitable. That is not true. We need to carefully focus on applying the cultural skills we have developed over the last 2000 years. And Milan could be one of the biggest and most promising challenges of all."

What are the suburbs? That is the question **Ottavio Di Blasi**, representing ODB-Ottavio Di Blasi & Partners and Tutor of the G124 Renzo Piano work group, posed in his speech. He also mentioned some innovative projects



PONTE LAMBRO - MILAN



GIAMBELLINO - MILAN



BERLIN - GERMANY

that have been developed in the Milan area.

"There is a direct correlation between levels of inequality and competitiveness: the more an area manages to reduce inequality and provide a good quality of life for the people inhabiting it, the more that area becomes competitive and, hence, capable of making the businesses operating within its bounds more competitive", so **Adriana Spazzoli** noted, the President of the Sodalitas Foundation and Operational Marketing and Communication Director for the Mapei Group.

"Multi-stakeholder partnerships are the key approach allowing businesses to help reduce inequality to make everywhere (and urban areas in particular) more competitive". "Let's not forget - so Ms Spazzoli noted - 36% of the Italian population lives in 14 metropolitan cities. And working with organisations such as the Cresco Award-Città Sostenibili, Sodalitas Foundation and ANCI (the Association of Italian City Councils), these cities are committed to promoting business-city council partnerships to enhance the territory".

The Archbishop of Milan, **Mario Delphini**, expressed his appreciation for the project and emphasised the need to work together "otherwise we will be focused solely on our own personal well-being and end up being afraid of even our neighbours. The common good means feeling good together, not doing things for people living in the suburbs but with people who live in these areas. I can proudly say that this is the direction in which the Church is working."

TOP OF PAGE. Introductory speeches by Diana Bracco (Bracco Foundation), Giuseppe Guzzetti (Cariplo Foundation) and the Mayor of Milan, Giuseppe Sala.

LEFT. One of the 4 sessions featuring Adriana Spazzoli (Sodalitas Foundation and Mapei Group), Alessandro Beda (Sodalitas Foundation), Rachele Furfaro (Foqus, Fondazione Quartieri Spagnoli) and Matteo Locatelli (PinkFrogs Srl).





EMERGENCY AND MAPEI for Africa

AN UPDATE FROM THE SITE IN ENTEBBE WHERE EMERGENCY'S NEW PAEDIATRIC HOSPITAL, DESIGNED BY RENZO PIANO, IS TAKING SHAPE

"We are building a centre of excellence for paediatric surgery in Uganda. Children will come from all over Africa to receive high quality care completely free of charge. They deserve a good hospital, a place that is full of joy and love, something that restores in them a little hope and a possible future". The words of Gino Strada, founder of Emergency, sum up perfectly the motivation for building the new centre for paediatric surgery in Entebbe, 35 kilometres from the capital of Uganda, Kampala. The complex will not just be a hospital of excellence; it will also be a training centre for doctors and nurses, provide medical services and assistance to the local people, offer free care and be a centre of reference for children in need of operations, not only from Uganda but from the whole of Africa. Designed by the Renzo Piano Building Workshop design studio, apart from paying attention to the environment and

its overall energy efficiency, the complex will have a functional layout that can be copied and adopted in other areas of the African continent. The buildings that make up the complex will be built using resources and construction techniques typical of Africa, such as raw soil, one of the most ancient building materials used in various parts of the world and which are still employed in Africa.

STATUS OF THE WORK

After laying the first stone (see *Realità Mapei International* no. 63), last October the foundations have been dug and the first phase of building the walls has commenced. Work is on-going to complete the main framework of the hospital and then make a start on the finishing operations.

A tender to contract out work on the plumbing and electrics has been issued and both Italian and Ugandan contrac-



PHOTO 1. A view of the site of the new Emergency hospital for paediatric surgery in Entebbe.

PHOTO 2 AND 3. The hospital features walls built with the pisé technique using MAPESOIL 100 and MAPECRETE CREME PROTECTION.

PHOTO 4. Building the formworks for the pisé walls of block A.

IN THE FACING PAGE. Renzo Piano and Gino Strada laying the first stone of the hospital.



A few years ago, the technicians working in Entebbe sent a series of samples of the material to the Mapei R&D laboratories in Milan to find a solution to the problems encountered on site. After analysing the material and carrying out an extensive research, an innovative solution was developed to build the hospital using the pisé technique.

It was proposed to use a mixture made up of clay soil excavated from the site, graded aggregates, structural fibres and MAPESOIL 100, a fibre-reinforced powdered stabilising agent used to treat and consolidate soil and recycled or raw aggregates, improving the mechanical characteristics of the treated material and its resistance to leaching. Once it had hardened, the surface was then treated with silane-based MAPECRETE CREME PROTECTION thixotropic impregnating cream to improve its hydrophobic properties.

6 containers full of Mapei admixtures have been shipped from Italy to site, apart from the formworks supplied by Doka to help the pisé walls take shape.

tors have presented their technical and commercial bids.

The foundations for blocks A and B have been completed and the stair well and lift well have been completed in block C. The area that will be used to house the service and plant equipment and the roof on the patient wards have also been completed, while the roof for the guest-house has not yet been built.

As far as the gardens are concerned, which are a very important feature of the design by Renzo Piano, all the various plants and trees have been chosen and they are waiting for the best period to plant them.

Shipping of the materials from Italy to install the roofs and floors is being carried out, while almost all the materials required to complete the metal structure have been delivered to site.

THE PISÉ TECHNIQUE: THE PROPOSALS FROM MAPEI

The concrete bases for the walls have been completed and work is continuing at full swing on building the walls using the pisé technique. There were delays due to experiments being carried out on this technique, which has never been used anywhere in the world to construct a building of this size and shape. After a slow start the rhythm quickly picked up and work is back on schedule.

The pisé technique consists of mixing soil with sand, gravel and a little water and then packing the mix into wooden

formwork. Even though soil guarantees a high level of thermal inertia that helps maintain the temperature and level of humidity in the building constant, it is lacking in structural properties and mechanical strength and is not very resistant to rain.



THE EMERGENCY HOSPITAL

EMERGENCY

The hospital complex is divided into three parallel wings: the first wing, a single-storey building and the smallest of the three, will form the entrance and welcome area to the hospital. The other two wings will be larger, with a ground floor and a basement, and will be next to the central block which is home for the operating theatres and the intensive care unit. The hospital will have three operating theatres and wards and beds for 78 patients. It will also be completely autonomous as far as electrical energy is concerned, thanks to the installation of 2,600 thin-film photovoltaic panels.

SPORT DIVISION

[👑]*ReStelvio* **MAPEI 2018**

The jerseys



UNFORGETTABLE MOMENTS OF GREAT SPORT

"Great sport" does not mean celebrating because some great foreign player will be wearing your favourite team's shirt next season. And as far as a business is concerned, getting involved in "great sport" does not just mean organising, promoting or sponsoring internationally important sports events. "Great sport" is something people enjoy every day. It means dedicated training aimed at improving your health and performance on a daily basis, but, above all, it really means sharing the good times and bad times with your own team and the people closest to you, who are all a vital part of the process of improving and becoming more successful.

For Mapei this kind of passion comes, year after year, from being actively involved as a Main Sponsor - and engaging thousands of other people, including friends, customers and people who work with the company - in "Re Stelvio", a unique and unmissable event organised by Unione Sportiva Bormiese that was held for the 34th time this year. The event took place on 8th July and attracted 3200 competitors, who took on the 48 hairpins of the most famous alpine climb of all, Stelvio Pass, battling it out with the king of all mountain roads, either on foot or on a bike.

Originally set up as a cycle race, today both runners and cyclists (professionals and amateurs) line up ready to take on the legendary Stelvio climb (a height gain of 1,533 m) up to the summit named after Fausto Coppi that stands at 2758 m: it is precisely 21.097 kilometres from Bormio to the top of the Stelvio mountain pass.

OVER 1.200 MAPEI CUSTOMERS AT THE STARTING LINE

This year, about 1200 Mapei customers or friends of the company, both Italian and foreign, signed up for the race.

As well as the famous competitive bike race, the other sports events were the



The start!

Aldo Sassi memorial bike ride to remember the deceased co-founder of Mapei Sport Centre, a half marathon road race and a running event open to everybody.

For the second year running an ebike ride also set off from the city of Bormio. Each hairpin bend had a gigantic photograph of great cyclists from the legendary Mapei Professional Cycling Team to encourage the athletes as they made the ascent.

After all, let's not forget that Mapei's passion for sports began with cycling, thanks to the company's original founder, Mr Rodolfo Squinzi, before moving on to football and other sports like basketball, volleyball and golf.

The event - whose jerseys featured a picture of a wolf as this edition's official mascot - was organised by Unione

Sportiva Bormiese in partnership with Mapei Sports Centre, which, like every other year, posted special training plans for cyclists and runners on its website for anybody planning to take part in the races.

Other official sponsors included the Stelvio National Park, Banca Popolare di Sondrio, Pirovano (the University of Skiing), Colnago and Santini.

For Mapei it was a great promotional opportunity extending well beyond the realms of Bormio.

The event was, in fact, filmed and broadcast in Italy on Sky 214 Bike Channel: it was broadcast for the first time on 12th July and was repeated a further 15 times on the same channel.

A TV advert and billboards also appeared at the beginning and end of the programme each time it was aired.

The Stelvio climb:
21 km with 48
hairpins and a
height gain of
1533 m.



The climb



The e-bike ride



RE STELVIO MAPEI AND "ALDO SASSI" MEMORIAL BIKE RIDE

Spending a day climbing up such a monumental shrine to sport and nature like the Stelvio, the king of alpine passes, and doing it at your own speed and own pace, either on foot or on a bike, is something anybody who loves sport or active tourism is reluctant to miss out on. A unique opportunity to take in the beauty of the natural landscape while enjoying the healthy, invigorating pleasure of physical exertion.

In a wonderful setting featuring everything from lush vegetation to the lunar landscape of the final few kilometres,

you could not wish for anything more on a sunny Sunday afternoon. The 8th July 2018 was not too humid, and the skies were as bright and clear as a picture postcard.

A delighted Riccardo Romani succeeded in completing a hat-trick of wins in the competitive race after crossing the line first in both 2016 and 2017, finishing almost 1 minute ahead of his closest rivals Niki Giussani and Federico Brevi.

The women's race was almost a replica of last year's event with the same three cyclists (Rausch-Collinge-Binda) dominating the rest of the field, even though the winner came in a full 5 minutes ahead of the second-place finisher (Emmie Collinge) and 9 minutes ahead

of Marta Binda, who came third. The podium for the "Aldo Sassi" memorial bike ride featured three youngsters: Mattia Gaffuri, who won in a time of 1 hour, 17 minutes, 23 seconds followed by Davide Cantoni and Michele Bracchi, with just one second between them.

E-BIKE RIDE

112 people took part in the e-bike ride this year. It took just over 49 minutes for Tranquillo Sormani to ride up the Stelvio finishing almost 4 minutes ahead of Mario Martinelli and Simon Giuseppe Feloj, who came second and third in this second edition of the race for pedal-assisted bikes.

FIDAL HALF MARATHON AND THE RUNNING EVENT

The FIDAL (Italian Athletics Federation) half marathon was won by Michele Belluschi in a time of 1.37.36, three minutes ahead of Loris Mandelli, who came second, and local athlete Andrea Prandi, who finished third.

The women's race was won by Meryellen Herman in a time of 2.01.05, finishing four minutes ahead of Ana Nanu (2.05.56) and 11 minutes ahead of Alessandra Arcuri (2.12.09).

The non-competitive running event was won by Francesco Fontana, who covered the 21 km in 2.07.15 to finish ahead of last year's winner Mirco Quadrio (2.10.32) and Andrea Truscello (2.18.46).

25th overall and first among the women was Ylenia Negri in a time of 2.52.24.



The finish line The prize-giving ceremony



14TH MAPEI GOLF TROPHY

The Re Stelvio Mapei event also included the traditional golf tournament on the La Fornace course at Bormio Golf Club, the 14th Mapei Golf Trophy using the four-ball Stableford scoring system, 2 players, 18-hole 4 best-balls for pairs (1 round) – an invitational competition for Mapei customers only. Bormio Golf Club is undoubtedly one of the best mountain golf courses in Italy: enjoying magnificent views across the surrounding peaks and an ideal climate that is always cool and dry, with excellent maintenance of the course.

On a perfect day for any outdoor sports events, over 80 golfers took part in a lively competition of a high standard.

In what is now a traditional competition for Bormio Golf Club that has become increasingly popular down the years, the 1st category gross score competition was won by Paolo Emilio Lino Balzarini and Giorgio Pelizza with a score of 35 points.

Robustellini-Cantoni won the 1st category net competition with a score of 46 points followed by Corvi-Robustellini. The 1st category mixed pairs was won by Angelo Mazzetta and Iole Robustelli with 43 points.

Among Mapei customers, the pair



ABOVE. The prize-winners for the 14th Mapei Golf Trophy that was held at Bormio Golf Club.

formed by Giovanni Bertalli and Maura Fomia scored 42 points followed by Marco Bellotti and Stefan Steenstrup, who scored 40 points.

A further two prizes were awarded for the nearest-to-the-hole competition: nearest in the 1/10 Men's event was Giorgio Pelizza with a distance of 1.43 m and nearest in the 1/10 Women's event was Riina Paluvee with 3.89 m.





SASSUOLO WASTES NO TIME AS THE TRANSFER MARKET OPENS: BOATENG SIGNS FOR THE CLUB ALONG WITH DI FRANCESCO, DJURICIC, ODGAARD AND SERNICOLA

KEVIN-PRINCE

Sassuolo will be raring to go in the forthcoming 2018-19 Serie A League Championship and Italy Cup. Its staff have been working tirelessly: nobody at the club has taken a break since it finished eleventh in the 2017-18 Italian Serie A. The transfer market has been in full swing for much of the summer and Sassuolo football club has certainly strengthened its squad. Among the first official new signings for the club owned by Mapei is the midfield player Kevin-Prince Boateng, aged 31, a German-born footballer who later opted to become a Ghanaian national. Last season Boateng played for Eintracht Frankfurt. Sassuolo has also signed the Serbian attacking midfielder Filip Djuricic, aged 26, who has joined the club from Sampdoria (although owned by the club from

Genoa, he actually played for Benevento last season) and the son of a famous team manager, Federico Di Francesco aged 24, a wide attacking forward bought from Bologna. Other players arriving at the club include young Jens Odgaard, aged 19, from Inter Milan and Leonardo Sernicola, aged 21, signed from Ternana in July 2018.

PRINCE BOATENG, A PRINCE AT SASSUOLO

For a club like ours - so Giovanni Carnevali, Sassuolo's Managing and General Director, told us - having a midfield player like Boateng in our squad is something to be proud of: he really is a tremendous player. We would like to thank Prince for helping us settle matters so quickly and he is clearly very

keen to come and play here. He comes from an important club like Eintracht Frankfurt, where he won the Germany Cup last season".

Boateng was born in West Berlin. "I am really proud to be part of Sassuolo - so the midfield player Kevin-Prince announced at his first press conference as a Sassuolo player - and I am really happy to be here. My first impressions of the manager, Roberto De Zerbi, and all the other players have been extremely positive. I can't wait to get to work and do my very best for the club and I am really looking forward to playing my first official matches wearing the black-and-green strip. I want to perform well for this club, which clearly has real ambition and has made a great impression on me. I have spoken about all this with

“

CARNEVALI : WE HAVE ANOTHER DI FRANCESCO WITH US AND THAT MAKES US REALLY HAPPY

Mr. De Zerbi. He called me during the pre-transfer period to try and persuade me to move to Sassuolo, a serious club and, as far as I know, a really great place to be. I've also heard that, according to the statistics, Sassuolo is the friendliest team in the Serie A".

Sassuolo is a small city and it does not have a huge fan base yet. "I am not interested in how many people come to watch our matches - so Kevin-Prince noted - even though I'm used to playing in big stadiums in front of large crowds. Of course, it's important to have plenty of fans at the stadium, but I am more interested in what the club hopes to achieve in the future and Sassuolo's plans have made a real impression on me".

Sassuolo is a young team and Boateng's experience will be extremely useful. "Sassuolo - so Boateng, who won the Italian League Championship playing for AC Milan in the 2010-11 season, went on to say - plays good football, rather

like Spain at its best, it is a team that always tried to hold onto the ball. Big teams often find it hard to play against Sassuolo, as I can remember when playing against them for AC Milan. Mr De Zerbi is the ideal manager for an up-and-coming team like Sassuolo, since he likes to play attractive football and does not like giving the ball away easily. Roberto believes in keeping possession of the ball as long as possible".

Kevin-Prince also played for Las Palmas in Spain before coming back to Italy and had an interesting behind-the-scenes anecdote to tell us: "De Zerbi and I were supposed to work together at Las Palmas but, in the end, he did not join the club and I was sad because he is a great person, I really rate him. If you ask 100 people what they think of De Zerbi, all 100 will have flattering things to say". So, what position will you be playing Mr Boateng? "I will play wherever Mr De Zerbi wants me to - so Kevin-Prince noted with a certain irony - maybe even

in goal. Joking aside, when I was at AC Milan I got used to playing "coast-to-coast", up and down the pitch. Over the last few years I've been playing in the midfield or up front, but I will do whatever the manager tells me to".

In its sixth season in the Italian Serie A, Sassuolo will be facing teams that have really strengthened their squads. "I really love the Italian Serie A League - so Kevin assured us - and the fact that some of the teams now have even more great players in their squads is an even greater incentive for me and my teammates at Sassuolo to perform even better. It's too early to say just what Sassuolo can achieve: our dream is to qualify for the Champions League in the short or medium term, although that would, of course, be a remarkable achievement".

There is another reason why this German-born player chose Sassuolo: "It is close to Milan, the city where I live with my family."

AND HIS NEW BROTHERS



OPPOSITE PAGE. Boateng with Sassuolo's Managing and General Director, Giovanni Carnevali.
ABOVE. Rossi, Djuricic, Di Francesco and Carnevali.

LIKE FATHER LIKE SON

Signing Federico Di Francesco was no easy matter for the Managing Director, Mr Carnevali. Clubs of the calibre of Inter Milan and Roma were hot on Federico's heels. This striker is, in fact, Eusebio Di Francesco's son, the former team manager of Sassuolo from the 2012-13 season (the team's last year in the Serie B) right through to June 2017. Eusebio really left his mark on the club owned by Giorgio Squinzi during his four years in charge in the Italian Serie A. "Now we have another Di Francesco in the team - so Mr Carnevali confirmed - and we are really pleased. We had had our eye on Federico for several years, but we never managed to sign him, partly due to the fact that his father was then our team manager and we decided to let

“

**DI FRANCESCO JR: “THANKS
TO SASSUOLO I HOPE TO GET
INTO THE ITALY TEAM.”**

RIGHT. Ferrari (back from Sampdoria), the new signing Sernicola and Babacar. Below, Odgaard in training and, on the left, Giorgio Squinzi with De Zerbi and Carnevali.



er”. Djuricic performed at a very high standard throughout the second half of the 2017-18 season.

ODGAARD HAS ALREADY WON THE TREBLE

The centre forward, Jens Odgaard, has also signed a contract until 2023. Born on 31st March 1999, he is an old-fashioned centre forward who is 188 cm tall and weighs 82 kg, who also plays well out on the right wing. Jens learned to play football with Lyngby before moving to Inter Milan.

Jens joined Inter Milan in summer 2017 to play for the youth team, but the team manager, Luciano Spalletti, decided he wanted him to join the first team for pre-season training in Brunico. This proves just how talented Odgaard is.

Playing for Inter Milan's youth team in the 2017-18 season, Odgaard, who is a really powerful player, won the treble, conquering the League Title, Italian Super Cup and Viareggio Cup World Football Tournament – Coppa Carnevale so there is plenty of reason to be optimistic about his future at Sassuolo.

MULTI-TALENTED SERNICOLA

Leonardo Sernicola joined Sassuolo after performing well in last season's Serie B playing for Ternana.

Leonardo is also a big, strong player, who is 187 cm tall and usually plays as a left back.

He has also played in midfield and even as a central defender.

him gain more experience and progress elsewhere. And Djuricic is also really talented”.

This is what Giovanni Rossi, Sassuolo's Technical Area Director, had to say about Filip Djuricic and Di Francesco Jr: “They are both talented and still haven't shown what they are really worth. They have certain very specific skills that Mr De Zerbi was looking for”.

Federico Di Francesco was adamant when he told us: “My dad is happy I am here, he knows the club and did really well here at Sassuolo. I am delighted to have joined the team, but my father and I do different things and we are two quite different people. I want to be judged for how I play here at Sassuolo and for the kind of person I am, I do not want to be labelled as the old manager's son. I want to show I deserve to be here at this important club”.

Di Francesco went through some tricky periods last season with Bologna. “I did not manage to achieve the goals I had

set myself - so Federico admits - so I am now determined to do better. I am quite happy to play as a wide striker, but I would be quite willing to play further back as a wide midfielder. I will do everything I can to improve every day, I want to keep on developing”.

Mr De Zerbi is considered to have a predominantly attacking mentality. “That will help me”, so Di Francesco pointed out as he told us what his real dream is: “To play for Italy”.

OVER FROM SERBIA TO PLAY AS AN ATTACKING MIDFIELDER

Djuricic has the advantage of already being familiar with some of De Zerbi's favourite tactics and style of play after playing for him at Benevento. “I am an attacking midfielder – so Filip told us, who has already played for Benfica, Mainz, Southampton and Anderlecht -, I am attacking-minded, something our manager likes, but I have also done well playing as a more conventional midfield-



cision. The referee saw what happened and reported it; Sassuolo was fined 2000 Euros and it was probably this “flying shoe” that prevented Sassuolo from winning the Scirea Trophy in its first season in the top flight. “That is the only fine our club has ever been given for a fan’s misconduct, the only blemish in five seasons in the Serie A”, so Mr Remo Morini assured us, the club’s official delegate for relations with fan clubs and fans in general.

“I am proud to say - so Mr Morini went on to say - that the club has never been fined by the ruling bodies for racist chants by its fans. Our average supporter goes to the stadium to celebrate or get angry depending on what they see on the pitch and, generally speaking, our fans’ chants are never against the other team and its players. We do not believe in provoking the away fans. Our fans are some of the very best; they realise that being part of the Mapei Group, even just as football fans, requires ethics and education”.

Sometimes it is the away fans who provoke our supporters. “Our fans get on extremely well with the away-team fans. We are twinned with Udinese and Chievo, whose fans were also joint-winners of the 2018 Scirea Trophy”.

The average Sassuolo fan is very knowledgeable: “Some even come to Ricci Stadium to watch us train. During those periods when the team was really struggling and we were being criticised by our fans, we took the time and provided the opportunity to listen to what everybody had to say. We treated everybody with the utmost respect”.

Sassuolo’s fan base is gradually expanding: a fan club will soon be officially opening in Caorle to the east of Venice in an area where people generally supports either Juventus, Inter Milan or A.C. Milan. “The new Caorle Sassuolo Fan Club - so Mr Morini noted - already has 70 members”.

Measures have already been taken at the stadium to try and attract more Sassuolo supporters to home matches.

As Mr. Morini points out, “Giorgio Squinzi and Mapei deserve even better support for what they are doing for Sassuolo: the fans must become our twelfth man on the pitch”.

SASSUOLO, you won the Scirea Fair Play trophy yet again!

THIS PRIZE IS AWARDED
TO THE CLUBS WITH
THE BEST-BEHAVED FANS:
THE TEAM HAS NOW
WON IT FOUR TIMES
IN A ROW



Fair play is in Sassuolo’s DNA. The Italian Football League Serie A has announced the results of the 2017-18 Fair Play rankings named after Gaetano Scirea, the great sweeper of the Italian football team who won the 1982 World Cup. This prize is awarded to the club with the best-behaved fans. This year Sassuolo was joint winner with four other teams: Cagliari, Chievo, Verona and Udinese. This is the fourth time in a row that Sassuolo has won.

The team’s fans were outright winners of the “Gaetano Scirea - Fair Play” trophy in previous seasons without having to share top spot with other fans. The club owned by Giorgio Squinzi has been celebrating victory in the Scirea trophy ever since the end of the 2014-15 League Championship.

The only time the team did not win was at the end of the 2013-14 League Championship, Sassuolo’s first season in the Italian Serie A. That year a Sassuolo fan threw a shoe on the pitch at Mapei Stadium to protest against a refereeing de-

Remo Morini, Sassuolo’s
Delegate to the fans.

DEVIS CAGNARDI TO LEAD THE WAY NEXT SEASON

"I WANT OUR SPORTS ARENA TO EXPLODE WITH JOY", SO THE NEW HEAD COACH OF PALLACANESTRO REGGIANA TOLD US



It is all change at Pallacanestro Reggiana basketball club. Massimiliano Menetti, who has been such an excellent head coach over the last few years, has decided to change team with the club's full support and blessing. The new head coach of the basketball team sponsored by Mapei is Devis Cagnardi. Devis, who played for a number of clubs in Lombardy, such as Celana and Lumezzane, and others from Emilia Romagna (Central Italy) during his competitive career, was quick to note that "I was born on the same day and month as Michael Jordan, the idol of all real basketball fans. Drazen Petrovic was another player I worshiped when I was a teenager". Cagnardi also began teaching children motor skills and basketball during the final years of his playing career. Devis first joined Pallacanestro Reggiana's coaching staff in 2006, initially teaching the game at the children's basketball school and then coaching the under 14s, 15s, 16s, 17s and 18s. An excellent apprenticeship for any coach.

"I became an assistant coach with Pallacanestro Reggiana's first team in the Italian Serie A2 during the 2010-11 season and then became Massimiliano Menetti's right-hand man the following season". Pallacanestro Reggiana basketball team won the 2011-12 Serie A2 Championship



**» AMBITION
HELPS YOU DO
YOUR BEST,
BUT YOU MUST
HAVE EVEN
MORE PASSION
THAN AMBITION**



LEFT. Leonardo Candi in action in the match against Trento.
ABOVE. The pivot, Riccardo Cervi, and the shooting guard, Niccolò De Vico.

and was promoted into the Serie A. That takes us to the present day: as Menetti's assistant Cagnardi has helped the team win the FIBA EuroChallenge cup, Italian League Super Cup and reach two successive play-off finals against Sassari and Milano. It is worth noting that Pallacanestro Reggiana reached the semi-finals of the EuroCup last season, eventually, only losing to the extremely powerful Krasnodar team from Russia.

"Promoting Cagnardi to head coach in the Serie A - so Filippo Barozzi, the club's Managing Director, was quick to point out - is a natural progression.". Devis's career as a coach has been much more successful than his playing career. "That is partly true - he admitted - although, to tell the truth, I do not tend to make any distinction in what I consider to be one single career. Now I am in charge of managing and developing the players and entire squad of an ambitious club, where everybody is really proud to wear the team colours, and that fills me with enthusiasm". Devis has a very clear approach to the sport: "I have always told all the lads I have trained that ambition helps you do your best, but you must have even more passion than ambition".

Devis will be without Amedeo Della Valle when he begins his job as head coach: the Italian national team's magnificent shooting guard has left Pallacanestro Reggiana to play in Milan. "I am not worried Amedeo has left us. He is a great player and it

is only natural that at the age of 25 he has chosen to move on to a team that plays in the EuroLeague. Here at Reggiana we will be focusing on other players in our quest to reach the top". The club will be keeping on its playmaker, Leonardo Candi, aged 21, its shooting guard, Niccolò De Vico, 24, and pivot, Riccardo Cervi, 27.

"As well as bringing on young players from Reggio Emilia, we are also determined to get great results with players who have been with Pallacanestro Reggiana since they were youngsters, regardless of where they were born. Cervi, Candi, De Vico and other players with new contracts all know that we need to play even better. I am aware that the club is planning to extend the contracts of various foreign players who were with us in the 2017-18 season and there is a good chance they will stay on. In any case, Pallacanestro Reggiana will have a full roster of players to compete at the highest level".

Last season Pallacanestro Reggiana did really well in Europe but were poor in the Italian league. Why?

"I was Menetti's assistant coach, so I can speak as somebody who was directly involved. We were not very lucky at the beginning of the season and the team was rather unbalanced, something we gradually put right. Strangely, we benefited more from the international rules that did not impose the same constraints as the Italian league and we could not play everybody we wanted in our league games. That is one of the reasons why the team reached the semi-final of the EuroCup, whereas we did not even make the play-offs in the Championship". Mr. Cagnardi and the Sport Director, Alessandro Frosini, travelled to the United States in early June to watch NBA Summer League in Las Vegas. It was a real opportunity to watch talented young American players close up. "A club like ours - so Devis went on to say - is equipped with computer technology that allows us to monitor every single professional player. We have software that instantly provides us with video clips of any game we want to watch. Nevertheless, we decided to go and watch these players live, so we could make some useful contacts for preparing the next and future seasons and not just in terms of the transfer market. It was an across-the-board experience".

The Italian A1 regular season begins on 7th October. "We might be getting some new players as early as September", so the team manager, Mr Barozzi, pointed out. "Pallacanestro Reggiana will definitely be competitive when the new season begins". The PalaBigi arena in Reggio Emilia is ready to be sold out for various matches with a full house of 4600 fans. "We will do everything we can to really make an impact, our loyal fans deserve it", so Mr Cagnardi added.



PRIVACY: how the European Regulation has changed

EUROPEAN REGULATIONS ON PROTECTING PERSONAL DATA ARE NOW IN FORCE

EU Regulation 2016/279, better known as the “GDPR” (General Data Protection Regulation), came into force on 25th May 2018. The GDPR is the EU legislator’s way of standardising regulations governing privacy adopted by member states. These regulations often differ or may even be in conflict, which hinders socio-economic integration at a time when the cross-border information flow (and hence flow of personal data, too) is constantly increasing.

The GDPR provides a community regulation on privacy that is valid and directly applicable to all member states of the European Union, as well as non-EU countries belonging to the European Economic Area (Norway, Liechtenstein, Iceland). But that is not all.

The GDPR also serves another purpose that has dramatically come to the fore in light of recent scandals in the trading of user profiles on social networks and the mishandling of personal data following attacks on the databases of important technology companies: the need to place people and their rights at the very centre of attention. Protecting personal data really means protecting a fundamental aspect of people, i.e. their own personal identity. This means protection against undesired intrusions or against “reconstructions” of personal

identities that are beyond our control.

To achieve this goal, the GDPR does not follow the familiar path taken by certain local legislations of setting a meticulous set of obligations and security measures to be respected. On the contrary, the GDPR “starts from the top” and places the protection of personal data at the very focus of corporate processes.

RESPONSIBILITY AND TRANSPARENCY

From this viewpoint, the fundamental principle of the new regulation is so-called “accountability”, in other words making operators (defined as “controllers” in the GDPR) on the European market responsible for how they process personal data. These data controllers have to identify all types of personal data processing they carry out and assess any risks it might entail for individual people. Based on this assessment, the controller in question has to adopt “appropriate” measures to guarantee data processing is carried out according to the regulation and is also expected to provide proof of all this to the appropriate authorities, such as the Data Protection Authorities. This is a continuous process, not a one-off procedure.

All this translates into a set of measures that controllers are ex-



pected to take, such as the revising of internal decision-making processes that must always take into account any privacy factors involved, the adopting of new internal procedures, and investment in cybersecurity measures and staff training.

Another key principle of the GDPR is “transparency”, which means controllers must make all information about personal data easily understandable and accessible to those concerned by explaining things simply and clearly.

Connected with the principle of transparency, the GDPR lays down a set of rights and guarantees to protect those concerned.

They include the right of only having personal data collected that are suitable, pertinent and confined to the purposes of for which they are being processed, meaning that the data controller is only entitled to hold onto personal data for the minimum amount of time required. It is also worth mentioning: the right of access (allowing the person in question to be informed as to whether their data are currently being processed or not); the right to rectify your own data if they are incorrect and integrate them if they are incomplete; the right to erase data; the right to transfer data from one controller to another; the right to oppose (at any time) data-processing for direct marketing purposes.

A new issue is the action to be taken in case of data breach-

ing (take, for example, the hacking of personal data from a computer system): in this case, the data controller must immediately inform (and, in any case, within 72 hours) the Data Authority. If a person's rights or freedom are at risk, the person in question must also be informed without delay.

It is also confirmed that special protection must be given to sensitive data (about a person's race or ethnicity, political opinions, religious or philosophical beliefs, genetics and biometrics, health, sex life, sexual orientation), which may not be processed except in special circumstances, and also data concerning criminal records and convictions, whose processing must preferably be carried out under public control.

Mapei agrees with the general spirit of the GDPR and has always considered the protection of personal data to be a priority for economic operators.

We have invested plenty of time, resources and money into ensuring we fully conform to what is set down in the new regulation and we have tackled these issues fully aware that this process is a significant step towards protecting our company's most important asset, i.e. the people behind it, whether they be staff, suppliers or customers.

Tommaso Cefis. Corporate Legal Affairs Department, Mapei Group

ACCOUNTABILITY

Operators (mentioned as “controllers” in the GDPR) on the European market are responsible for how they process personal data.

TRANSPARENCY

Controllers must make all information about personal data easily understandable and accessible to those concerned by explaining things simply and clearly.

RIGHTS PROTECTING PEOPLE CONCERNED

- Right of access
- Right to rectify your own data
- Right to erase data
- Right to transfer data from one controller to another
- Special protection for sensitive data



INSTALLING LARGE FORMAT TILES

CHARACTERISTICS, PROBLEMS AND
SUITABLE PRODUCTS FOR A TYPE
OF TILE IN GROWING DEMAND

Large format ceramic tiles cover a larger area, require fewer gaps and breaks (grout lines and expansion joints, which are often overlooked) and create the illusion of a monolithic, seamless finish. The larger the tiles, the fewer the number of gaps or breaks in the ceramic covering. For many people, this is considered to be an advantage and is highly appreciated by architects and clients. As technicians, we should be asking ourselves: do we use the same installation system for large format tiles as the one used for small to medium size tiles? Are there any particular precautions we need to take?

WHAT DOES “LARGE FORMAT TILE” ACTUALLY MEAN?

Are tiles measuring 30 x 30 cm or 40 x 40 cm classed as large formats? We could use common sense to answer this question but, if necessary, there is the Italian standard UNI 11493.1—*Ceramic tiles for walls and floors: design, installation and maintenance instructions*, which specifies the following:

“...according to UNI 11493 standards [...], large format tiles are defined as those having one side longer than 60 cm”.

For the purposes of this article, we will also consider tile formats of up to 3 m, and which in certain cases may even exceed these limits, with a thickness of 3 to 6 mm.



WHAT ARE THE MOST IMPORTANT FACTORS WHEN INSTALLING LARGE FORMAT TILES?

1. **Movement and handling:** particularly large tiles are usually handled and moved around on site using suction cups and rigid support frames. These all help to stop tiles bending too much, which could lead to them cracking or even breaking. Handling large tiles also requires a proper number of operators.
2. **The substrate** to which large format tiles are bonded, particularly when using thinner tiles, must be perfectly flat. This requirement is applicable for the installation of floor and wall tiles in general, but it becomes even more critical when installing large format and slim ceramic tiles or stone slabs. If the installation surface is too uneven, it could ruin the appearance of the finished covering or lead to cracking or breaking.

It is worth remembering that substrates on which ceramic tiles are to be bonded should be levelled off with a proper skimming or levelling compound (such as ULTRAPLAN, NIVORAPID, PLANITOP FAST 330 and similar products), and one should never just rely on the adhesive.

WHAT TYPE OF ADHESIVE SHOULD WE USE TO BOND LARGE FORMAT TILES?

The adhesive should be of the improved adhesion type and, in most cases (if not all!), it should also be deformable. Why? The larger the surface area of the tile, the higher the stress and amount of work the installation surface/adhesive/tile system will be subjected to. Natural deformations, or those induced by external events (such as temperature variations), could detach or damage the covering.

According to UNI 11493.1 standard, improved adhesion (class 2) and deformable (class S1 or S2) adhesive systems are recommended for ceramic tiles with one side measuring more than 90 or 120 cm. Deformable adhesives are characterised by their lower modulus of elasticity which makes them more efficient at "cushioning" strains caused by the different

behaviour of the materials that make up the installation system.

The latest technology enables tiles to be manufactured in formats and thicknesses which, until just a few years ago, were not available on the ceramic market. They are often reinforced by applying strengthening mesh on their back face and, in general, they have very low absorbency.

Class S1 and S2 adhesives guarantee particularly high levels of adhesion, so that even very large tiles made from porcelain (a material with very low absorbency) may be bonded successfully. Beside the adhesive, grout lines, expansion joints, the double-buttering technique and a correct assessment of site conditions are all fundamental aspects that need to be considered in order to install large format tiles successfully.

Marco Albelice. Mapei SpA Technical Services Department

MAPEI FOR LARGE FORMAT TILES

In the wide range of Mapei adhesives, three products are especially suitable for installing large-format ceramic tiles and stone slabs:

- **ELASTORAPID:** two-component, high performance, highly deformable, quick-setting and drying cementitious adhesive with no vertical slip and extended open time (class C2EFT S2 according to EN 12004 standard).
- **ULTRALITE S2:** one-component, high-performance, highly-deformable, lightweight cementitious adhesive with extended open time, very high yield, and good buttering capacity, easy to trowel, with very low emission of volatile organic compounds, ideal for thin porcelain tiles (class C2E S2).
- **KERABOND:** cementitious adhesive of class C1. Mixing it with **ISOLASTIC** in place of water improves its characteristics to meet the requirements of class C2E S2 (improved, highly deformable, cementitious adhesive with extended open time).



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