INTERNATIONAL

Realtà MAPEI

ISSUE 39

Year XII - N. 39 - July 2012

I WILL NOT BE BREAKING AWAY

As I have already stated in my speech as the President of Confindustria, the Confederation of Italian Manufacturing and Service Companies (see the dedicated article in this issue), as regards all us business people, taking on a leading role in an association must be a mission serving the businesses we represent and, consequently, also serving the country where we live and work. Unless we are the first to demonstrate this belief through concrete facts, then we will never be able to expect that of others. Most significantly, we cannot expect it of our politicians. I refuse to consider associationism as a profession. I am a businessman and I will be a President who represents all business people: this will not be Giorgio Squinzi's Confindustria, it will be the Confindustria of all real business people: whether they be big, medium-size or small players.

I will be taking on this mission and the challenges that lie ahead with the same commitment and the same determination I inherited from my father and that allowed me to make my own Company grow and prosper. I have learned that building a better future lies within our possibilities and capabilities. We need to work very hard. We must "be obsessed with growth" all the time. It is only right to ask help from anybody who can give it, but in the end you know you have to count on your own capabilities. Without ever giving in.

This is the spirit in which Mapei has grown year by year, making its presence felt in Italy and around the world. And this is the growth model I intend to extend, as far as I can, to the most important organisation representing manufacturing and services companies in Italy.

The accolade I have personally received, if it is indeed an accolade, should in fact be extended to the entire Company and the warmth and affection I can feel at the moment coming from the great "World of Mapei" all around me. This only makes me more convinced about what I think and even more proud of the path we have already taken and the road we still need to travel along all together. Because, and I want to underline this with great emphasis and joy, I am and always will be a Mapei man. This is where I came from, where I have grown professionally and where, together with all of you, I want to remain. And so, for all these reasons, even though I love to watch a cyclist break away from the main bunch and ride to the finish on his own, I will not be breaking away.

Our roots cannot be severed. And any person, business or nation that thinks they can will be condemned to failure. This is why I am staying in the bunch (the big bunch that is the Mapei Group), maintaining my support for the Company and, at the same time, drawing on those grounding values that have made it great. Without disregarding the energy and enthusiasm we breathe in every day as we take on new challenges. This is the only way I can be sure that I can be even more effective in the role I have been given at such a tricky moment in time for both Italy and the entire world.

Giorgio Squinzi

CEO of the Mapei Group

SUMMARY


London 2012

IN THE SPOTLIGHT

ADESILEX G19 page 26, **MAPELAY** page 30, **ULTRACOLOR PLUS** page 32, **KERAFLEX** page 38, **KERAQUICK** page 41, **ULTRABOND ECO V4 SP** page 78, **ULTRAPLAN ECO** page 81, **MAPEFLOOR FINISH** page 104, **EVOLIGHT** page 105, **ADESILEX P9** page 86.

COVER STORY: Giorgio Squinzi is President of the Confederation of the Italian Manufacturing and Service Companies. He officially took up this position on 24th of May, 2012 with an official speech at Confindustria General Meeting in Rome (see article at page 2).

EDITOR IN CHIEF
Adriana Spazzoli

EDITORIAL CONTRIBUTORS AND ENGLISH TRANSLATION
Tiziano Tiziani, Federica Tomasi, Metella Iaconello, Martyn Anderson, Nicholas John Bartram

PRODUCTION AND EDITORIAL COORDINATOR
Metella Iaconello

GRAPHIC DESIGNER
Studio Magazine - Milan (Italy)

PRINTED BY
Arti Grafiche Beta - Milan

PUBLISHED BY
Mapei SpA

Via Cafiero, 22 - 20158 Milan (Italy)
Tel. +39/02/376731
Fax +39/02/37673214
website = www.mapei.com
E-mail = mapei@mapei.it

PRESIDENT & CEO
Giorgio Squinzi

OPERATIONAL MARKETING DIRECTOR
Adriana Spazzoli

REALTÀ MAPEI - BIMONTHLY MAGAZINE
Registered by the Tribunal of Milan
n. 363/20.5.1991
Realtà Mapei International is published 4 times per year

CREDITS
Carlo Carino, Confindustria, Confindustria Ceramica, Centro Mapei Sport, Gaetano Basso, Gianni Dal Magro, Claudio Gavioli, Mapei Construction Materials (Guagzhou) Co. Ltd (PRC) , Mapei Corp. (USA), Mapei GmbH (Germany), Mapei GmbH (Austria), Mapei UK, Kiyoto Ishimoto, Rasco Bitumentechnik GmbH, Studio fotografico Samira Zuabi.

"Responsible Care" is the world chemical industry's voluntary program based on implementing principles and lines of action concerning staff health and environmental protection.

CONFINDUSTRIA: Public Assembly, 24th May 2012

In these pages you find a summary of the speech given by Giorgio Squinzi, President of the Confederation of Italian Manufacturing and Service Companies

[…] I have a conviction, actually a very strong conviction, which has led me to the position that I am about to take over: Italy's low growth is mainly a result of the difficulty of doing business in this country. Confindustria's duty is to work toward removing these difficulties.

The complexity of laws and their obligations, the slow speed of bureaucracy, the long and uncertain waiting times for justice, the unbearable fiscal burdens, and the lack of adequate infrastructures are the old ills of this country.

Over time, these factors have increasingly weighed us down, hindering improvements in the production system with the triple threat of globalization, a single currency and the revolution of technology and informatics.

The result has been an economic growth rate among the lowest in the world. The great crisis originating from the United States in 2007 has produced more serious damage in Italy than in most other countries.

The Italian GDP is 6% lower than pre-crisis levels, while the United States and Germany already regained that level in 2011. In the same period, industrial production has fallen by well over one fifth. Even now, month after month, we are recording continued drops which are quite dramatic in some sectors.

Italian companies, which work prevalently for the domestic market, have fallen into an unprecedented crisis.

They lack demand and liquidity. Access to bank credit has become problematic. The State pays with ever-growing delays that are no longer tolerable. These are not the qualities of a civilized country.

Elsewhere, those waiting times for payments have been reduced specifically to help companies. It is also true that payment times for private companies have increased significantly, whereas they have shortened in France and Germany. This has increased the need for financing exactly when bank credit is denied.

In this way, the economic crisis and the crisis of liquidity have created a downward spiral that threatens the very survival of Italian companies […].

Our first job is to stop the bleeding and restore confidence.

Italy needs a solid foundation to return to growth. Short term solutions are needed to overcome the crisis, and long term solutions are needed to direct savings into investments over time that will create employment and development.

Boosting consumption is fundamental, but it is not enough. If there is no emphasis placed on long term growth

with significant investments, recovery will not last.
The excesses of the financial market and its distance from the real economy are problems that need to be faced and resolved. Finance needs to return to its original and natural mission: to support companies for economic development.[…]
I will be a defender, solid and tenacious, of the interests of companies. I will defend the causes of legality and civil society, without which there could be no markets, nor companies.
The crisis we are experiencing is the longest and most profound since the crash of 1929. Compared to that time however, there is a different engine of growth now: the emerging countries. In proportion to their production, there is a corresponding significant rise in domestic consumption. This creates great opportunities for demand, localization of investments and internationalization of our firms. As a consequence of the process of globalization, competitive comparison has become increasingly demanding. External factors are becoming central for the competitiveness of a company, namely those deriving from the economic, political and institutional system where the business is operating.
The company cannot be expected to intervene directly in response to these factors, but needs to be able to count on a strong system that will represent its interests. The unbridled spread of globalization gives a greater role to associations in the creation of conditions for competitiveness […].

Europe at a Crossroads

In this global scenario, it's difficult to believe that European countries, even if they are large, can have an influential role if they act separately.
Only a united Europe can make its voice be heard […].
Today, after more than a half century of often-turbulent times, Europe is going through its most difficult phase yet. The whole project could weaken or even crumble. The risk is real.
I believe that Europe will hold up. Actually, I believe that the idea of the founding fathers can and must be upheld, for a Europe that will be more of a community, and less of a mere collection of nations.
It is precisely in a moment of crisis like this that the idea of the United States of Europe needs to be promoted. Perhaps not for us, but certainly for our children.
The single currency creates a common destiny for us. It obligates us today to build a more solid house. A house better able to blend the need for severity with the need for growth.
A house able to withstand significant infrastructural projects, which are essential for the development of the entire Continent.
We must pay Europe even more attention. Seventy percent of Italian laws regarding companies come from the wider community. For these reasons, Europe will be one of the priorities of my term […].
If we want to stop the bleeding, it is necessary to immediately take certain steps.

Simplify Italian Public Administration

I've said it before and I'll repeat it: reforming the Public Administration is the "mother of all reforms" because along with simplifying laws, it can also help Italy return to growth. In this way, it would not further add to the deficit, but will strongly influence competitiveness and therefore growth.
In order to grow, it is necessary to let out the creative and innovative energy that Italy possesses, free citizens and companies from the shackles that restrict free enterprise.
Despite the crisis, Italian businesspeople continue to invest, innovate, export and believe in the future.
For this reason, it is essential now more than ever, to combat a culture that distrusts those who want to go into business. We need to discourage the hostile preconceptions that some people have toward production centers […]. Everyone can see the results that have come from this distorted vision. In particular, that of the Italian public sector and the extent of the State's role, which even today is still considered the only possible source of employment […].
In the various stages of the public sector's "production chain", which follows laws from their creation to their enforcement, there is widespread resistance and inefficiency impeding the vision for the collective interests of the Country. At the top of the chain, there is a cumbersome regulatory system, characterized by irrational and contradictory rules. In this respect, the Reform of Title V of the Italian Constitution has had damaging effects.
How is it possible for a bid for authorization to be governed by one state law, at least twenty-one regional laws, and about eight thousand municipal regulations that are all too often in conflict with each other?
Foreign investors do not understand all this, and prefer to divert their initiatives to other countries.
The numbers speak for themselves: in the World Bank report *Doing Business*, Italy was ranked at the 87th posi-

tion, surpassed by all of the main European economies […].
In order to be efficient, a taxation system must be stable. In Italy, the fiscal rules change every month. It is time to turn the tide […].
The financial administration today is seen by many as a true enemy. All too often, examinations and investigations into companies are based on principles that lack solid legislative backing (evasion, abuse of laws, uneconomical acts) or on highly debatable interpretations of laws.
Companies live in a state of uncertainty. A simple change in interpretation could have serious consequences for their obligations and sanctions.
The financial administration must know how to distinguish honest taxpayers from dishonest ones. The latter need to be punished, with sanctions based on the gravity of their transgression. The former should be helped, even – if done in good faith – when they make a mistake […].
The efforts of innovators and the risk that investors take should not be canceled out by the uncertainty of waiting years to receive authorization or to validate a contract in front of a judge […].

The State Must Follow Through on Their Obligations to Suppliers
In the last times, important measures have been taken in Italy regarding the granting of credit and compensation for debts that have been registered. This will give companies room to breathe in terms of liquidity.
Now we are waiting for the Italian State to actually accelerate payments, both for outstanding debt and for new supplies. We can no longer accept that companies fail because they must pay taxes on what they provided for the State, and for which the State did not pay. We can no longer accept that the State delays even reimbursing VAT claims […].

Give Instant Credit to Companies
The shortage and costs of credit are the most important knots to untangle because they are strangling the rest of the productive fabric. We know very well that increasing the assets of a company is a universal goal.
We also know that the exacerbation of the credit problem in Italy in the last year is linked mainly to the international markets' lack of confidence in the Italian national debt, and to rules that penalize Italian banks and diminish credit for small and medium enterprises. We ask for increased effort by the Italian State and banks […].
We must make sure it that the banks concretely implement the agreed-upon moratorium from last February, as well as the protocol endorsed Tuesday [the 22th of May]: the funds obtained through favorable interest rates from the ECB must finance investments and give liquidity to companies in light of the delayed payments from the Italian Public Administration. And it must better utilize the great potential of the Cassa Depositi e Prestiti (Deposits and Loans Fund) […].

Research and Innovation
Today more than ever, the most important factor of production is research.
In order to return to growth, to be main players in international markets, to create employment and ensure a high quality of life, it is essential to place Research and Innovation at the center of all businesses, of the Government, and of the Nation.
We cannot continue to view Research and Innovation as something sectoral, periodical, or residual. Italy is behind in its investments, both public and private.
Growth is necessary in high-tech sectors and Research must be supported in every business, no matter what size or sector, including the traditional ones […].

Education
Education is not a luxury. It is necessary for forming enlightened citizens. But it is also important for companies, which often have a hard time finding the skills and professional figures they need […].
The antiquated distrust of business must be overcome, as well as the idea that school is important for life but not for work. As if life and work were separable.
With the shifting trend of students' toward technical studies, we are beginning to enjoy the results schools' and companies' efforts to attract young people to more in-demand courses of study.
Italian universities too, after the recent reform, are called to make a fundamental contribution to this Country's growth. Assessment, new governance, autonomy and flexibility, new criteria for recruitment, more competition among universities and increased relations with companies: these are the ingredients for true change in the Italian academic system.

Internationalization and Protection of "Made In Italy" Products

We have to strengthen our protection of Made in Italy products, especially at the European level, by preventing measures such as anti-dumping from being undermined. We must also declare with greater determination that commercial rules must be respected by all parties. The Government has to employ any resources necessary to confront the problem of counterfeiting, both at customs houses and throughout the territory […].

Infrastructure, Construction and Protection of the Territory

The infrastructural gap is among the main causes of the lack of Italian competitiveness and of the recession in progress. The construction sector employs three million people directly and indirectly. New and innovative infrastructure is an essential factor in Italy's competitiveness.

To attain a true infrastructural policy, resources are not the issue. Rather, it is the weakness of decision-making power that must be overcome. Infrastructure must be planned, not driven by administrative logic or emergency situations […].

The goals for the next few years must include at least the following:

• expand the range of projects to include everything from new works to maintenance, from reconstruction to the revival of existing infrastructure;

• take advantage of liberalization and the opening and regulation of markets to fully integrate private capital with public resources;

• use infrastructural policy as a tool of industrial policy geared toward innovation and competitiveness of companies;

• create a new plan of construction for public housing as well as incentives to use new technology for energy efficiency and an enhanced quality of life.

Sustainability and the Environment

Today, it is widely known that development can only take that name if it is socially and environmentally sustainable.

It is a challenge that regards the entire society, in which companies play a significant role. They will be the champions of innovation, reorienting traditional production toward more sustainable solutions. They will be strategic in sectors where sustainability provides true leverage for growth […].

* * * * * * *

[…] We are only asking to be able to work in a Country that is less difficult and inhospitable, more normal and more similar to other advanced Countries. We are not asking for special favors or privileges. Working for our companies means working also for the Community, the Country, and Italian society, of which companies are an integral and indispensable part […]. The community will harm itself and break down if business weakens and reduces its functions until it cannot operate […].

As entrepreneur, we have a specific social responsibility towards everyone: our workers, our clients, our suppliers, the citizens and the entire Community.

Above all, as entrepreneurs, we have a historical responsibility toward our youth.

If we do not open up new possibilities for employment and a life of dignity to young people, or develop new opportunities for social success, the future is lost not only for them, but for everyone. For Italy.

The Italian Government and the Parliament must act on four absolutely urgent situations that we have described:

• reform of the Public Administration and normative simplification with prompt and concrete results;

• payments from the Public Administration;

• cuts to public spending in order to reduce fiscal pressure, and a sustained increase in domestic consumption;

• credit for companies.

For us, it is a question of survival that coincides with the survival of Italy itself. And it is for this reason and in this spirit that we ask to open up a debate for a new industrial policy that will give this Country true prospects for growth.

We don't believe there is a magic wand, but we have the determination and desire to contribute to the resolution of this Country's problems. Because our fortunes are linked to this Country by an unbreakable bond. Because we believe in this Country, otherwise we would not be in the profession we are in. Because we think that our companies are the future of this Country, of our youth, of our children.

© Photo by Gianni Dal Magro

THE WHOLE MAPEI GOES TO THE OPERA

Giuseppe Verdi's *Aida* to celebrate 75 years' history and excellence in the building industry at the La Scala Theatre

The La Scala Theatre in Milan was the scene of the 75th anniversary celebrations of the founding of Mapei. Performances of *Aida*, perhaps Giuseppe Verdi's most famous and frequently performed opera, held on Sunday 19th and Tuesday 21st February, were perhaps the high point of this important moment in the Company's history. Two memorable events underlining Mapei's great love for art and culture. While the performance at the La Scala on Sunday 19th, exclusively for Mapei, was mainly reserved for customers, journalists, personalities and guests mainly coming from abroad, Tuesday's performance had a "more Milanese" audience consisting mainly of staff, assistants and workers at the Company.

On Monday 20th February, between one performance and another, lots of mainly foreign guests also got the chance to visit the real beating heart of Mapei, including the headquarters in Viale Jenner 4, the Research & Development laboratories in Via Cafiero and the Group's most important manufacturing plant in Robbiano di Mediglia, just outside Milan. Celebrations that clearly outlined a principle that has always inspired Mapei and which sees work, art and culture unbreakably linked together. Over 2400 people from all over the world, including staff, partners and friends of Mapei, all gathered around Giorgio Squinzi and his family in a theatre that truly symbolises the international nature of a Company, which, nevertheless, has never reneged its Milanese roots. Because the relationship between Mapei - a Corporate Subscriber of

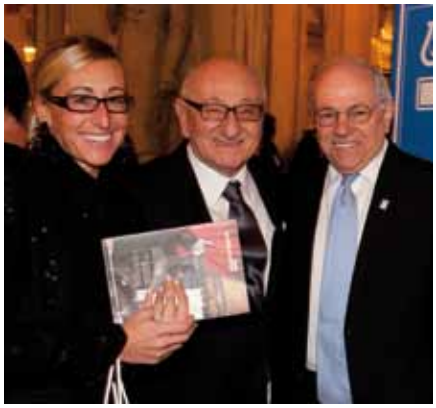
the La Scala Theatre since 1984 and a Permanent Founder since 2008 - and the most famous Milanese institution in the world is based on common values: excelling around the world focusing on innovation while holding onto one's own traditions.

For two evenings the opera house was coloured "Mapei blue" as part of what were truly global celebrations, both due to the various different languages that could be heard out in the audience and because of the truly international cast of artists performing Verdi's legendary work. As regards internationality, it is worth remembering that in 1869 Verdi was commissioned to compose *Aida* by Ismail Pasha, the Viceroy (Khedive) of Egypt, for the official opening of the new Cairo Theatre. The first performance of the opera was delayed due to the Franco-Prussian war, because the costumes and set designs were in Paris, which was under siege at the time. So the Cairo Theatre opened with *Rigoletto*, but when *Aida*

In these pages.
Pictures from the gala evening of 19th February with a performance of Giuseppe Verdi's *Aida* at the La Scala Theatre, entirely reserved for Mapei guests.

was finally performed for the first time it was an enormous success and continues to be one of the most famous of all operas.
The world première of the opera actually took place at the Khedivial Theatre in Cairo, Egypt, on 24th December 1871, conducted by Giovanni Bottesini, while the European première took place on 8th February 1872 at the La Scala Theatre in Milan. The opera was international right from the start and, more than any other, it has managed to spread the notes all over the world of a musician, who represented Italian-ness both in the field of art and of those political ideals that inspired the unification of Italy.
The two celebratory performances of Mapei saw Giuseppe Verdi's most exotic opera conducted by young Omer Meir Wellber, who had already conducted Tosca in 2011 and conducted this very staging of *Aida* during the La Scala's tour of Israel. A sumptuous staging first directed by Franco Zeffirelli in 1963, featuring elegant set designs and costumes beautifully designed by the Italian stage designer Lila De Nobili. A musical masterpiece that was a tribute to the history of the La Scala Theatre and Italian taste and style, in order to emphasise how, here again, one of the guiding principles behind Mapei was very much to the fore, summed up in the following words by Giorgio Squinzi: "just as an artist would say that there can be no art without hard work, Mapei has always firmly believed that work can never be separated from art".

Above.
Some of the numerous guests who attended the evening performance of *Aida* on the 9th February together with the Squinzi family: clients, journalists, friends of Mapei, personalities and guests mainly from abroad.



On the evening of 21st February, Mapei invited lots of clients and staff to the La Scala Theatre, again to see *Aida*, to celebrate its 75th anniversary.

TEATRO ALLA SCALA

INTESA SANPAOLO

STAGIONE D'OPERA E BALLETTO 2011/2012

DOMENICA 19 FEBBRAIO 2012 – ORE 15

TERZA RAPPRESENTAZIONE

In occasione del 75° anniversario di MAPEI

AIDA

GIUSEPPE VERDI

OMER MEIR WELLBER

BRUNO CAGNOI

FRANCO ZEFFIRELLI

LILA DE NOBILI VLADIMIR VASILIEV MARCO FILIBECK

MAPEI

Art, Work and Growth

Cultural development is a very cutting-edge issue and, by some significant coincidence, again on the 19th February the Italian financial newspaper *Il Sole 24* Ore promoted a Council for Culture. The article published in the Sunday supplement of this newspaper, entitled "No Culture, no Growth", included a Manifesto for Culture divided into five parts, focusing on relations between growth and knowledge, research and art. The paper also claimed that over the last 10 years in Italy - unlike other countries such as France, Germany, the United States and recently "emerged" economies - the exact opposite has happened to what should have happened. Culture, the Ministry of Culture and the various Ministries dealing with it (Cultural Assets and Activities and Education, University and Research) have been marginalised and considered as unprofitable expenditure to be subject to across-the-board cuts. It goes on to point out that a radical change in direction is required. The real aim of developing culture should be placed at the very focus of all government policies. An issue taken up again most emphatically on the front page of the *Corriere della Sera* newspaper by the Italian journalist Gian Antonio Stella, who, in his editorial of Sunday 4th March entitled "The Dictatorship of Neglect", pointed out that "comparisons between 125 Nations, based on statistics provided by the University of Konstanz (Germany), leaves no room for doubt: where there is more culture there is greater innovation, growth and wealth, and less corruption". The consideration is in line with Mapei's own line of thinking, a company which has always been in the front line in trying to create "a

Over 2400 people from all over the world gathered around Giorgio Squinzi and his family.

virtuous circle between knowledge, research, art, preservation and employment".

So it is no coincidence that one of the most famous shrines of art in the entire world was chosen to commemorate such an important anniversary in the Company's history.

The thoughts Giorgio Squinzi expressed at the reopening of the La Scala Theatre - following the last restoration intervention in which Mapei played a leading role with its products and on-site technicians - are still very much to the point in emphasising that "the search for increasingly advanced solutions makes it possible for creativity to unfold". Giorgio Squinzi's love of art and great music comes from way back, and he can still remember his father Rodolfo taking him to the La Scala for the first time in 1956 when "Maria Callas, Mario Del Monaco and Giulietta Simionato performed what for me has always been a truly memorable Norma". If "investing in beauty and brains is a good deal", as Stella points out, then Mapei is a concrete example of how this piece of advice has always been an integral part of its philosophy. This is testified by its investments in R&D, its contribution to building work all over the planet, and even these opportunities to celebrate its history. Because the sense of celebrating is to strengthen a community's identifying spirit and convey it outwards.

Due to the considerable number of guests at the La Scala Theatre on the 19th and 21th February, there was a feeling of being at the centre of the world of culture and beauty for at least a few hours.

An ideal atmosphere to grasp just how tangible the relations are between art and work, passion and team spirit.

FROM THE OPERA HOUSE TO THE MANUFACTURING PLANT

Milan, 19-20-21 February

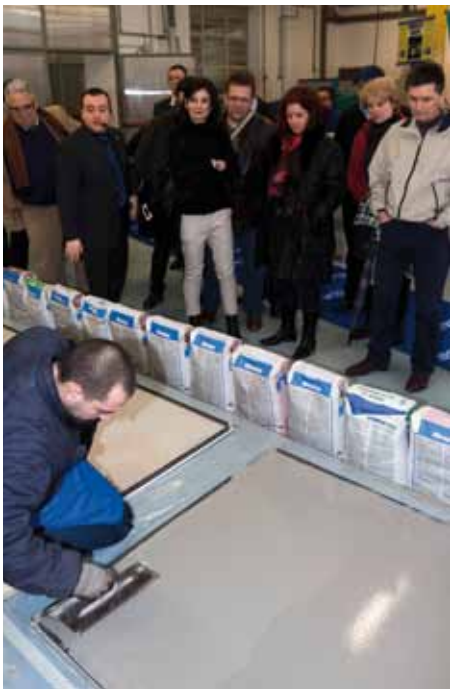
TOUR OF MAPEI

Guided tours around the nerve centres of Mapei to commemorate 75 years of culture and work

Monday, 20th February.
Lots of guests from all over the world visited the beating heart of Mapei, first and foremost the corporate headquarters. Shown in the photo, top, Giorgio, Adriana and Veronica Squinzi and a group of staff from the Chinese subsidiaries with their customers.

Originally founded in 1937 in the Bovisa district of Milan by Rodolfo Squinzi, father of the present CEO Giorgio Squinzi, Mapei has now developed from being a small family business into a multinational operating on all the world's markets and a leading company in the chemical products for building industry. Bonds with Milan have always been extremely close and some of the Group's main business facilities are focused here. In Milan Mapei has its headquarters, its most important Research & Development centre and, just outside the city, the Group's most important manufacturing plant. On Monday 20th February, these locations were visited by lots of guests, who were able to see, how Mapei's technologically cutting-edge products are designed, manufactured and then tested out. There were three stops on the tour. The executive headquarters in Viale Jenner, the Research & Development laboratories at the old headquarters in Via Cafiero, where Mapei was first established 75 years ago and, lastly, the ultra-modern manufacturing plant in Robbiano di Mediglia to the east of Milan. A guided tour of these places was the easiest and most effective way of retracing the most significant steps in its history and to remember and thank all the people who have made the Company's relentless growth possible.

CORPORATE HEADQUARTERS



In these pictures.
Lots of guests also visited the Mapei Corporate Research Centre in Milan, the Group's main research centre employing 170 technicians and researchers.

R&D LABORATORIES

The Stages of the Tour: Corporate Headquarters

This intense and elaborate Mapei Tour, which lasted a day, was taken by lots of guests, most of them foreign, who enjoyed a guided and highly informative tour in a very festive and, at the same time, professional atmosphere.

The starting point for everybody was the Mapei headquarters, a seven-storey building covering a total of 6400 m^2 that holds administration, business and marketing offices. Here they visited the showroom, the technical service team's demonstration area and the auditorium where lots of different training courses are held on an almost daily basis.

R&D Laboratories

Guests were then able to visit the Corporate Research Centre in Via Cafiero in Milan, which employs 170 researchers and technicians and coordinates the operations of the Group's 18 laboratories. Headed and coordinated by Marco Squinzi, this is where the Company's most innovative products are designed. Visitors were able to take a close look at the extremely modern cutting-edge technology that the Centre holds and see why this scientific centre really is one of the world's most important specialist laboratories in the chemicals for building industry. In order to achieve this status, the Centre, which absorbs about 50% of the Group's research budget, adopts a very innovative approach,

THE MANUFACTURING PLANT - ROBBIANO DI MEDIGLIA (MILAN)

whose strong points include the creation of specialist research teams. Its working teams are constantly interacting, because multidisciplinarily involves exchanging knowledge between teams and constantly updating scientific knowledge through working partnerships with the scientific community.

The Manufacturing Plant in Robbiano di Mediglia (Milan)

The final stage of the tour was a trip to the manufacturing plant in Robbiano di Mediglia, which was built in 1975 and has been extended on several occasions since then; it is the Mapei Group's main manufacturing unit, the flower in the buttonhole of all its 60 manufacturing plants located in 29 different nations around the world. After greeting the guests, the head of the department or office illustrated how the machinery works and how everyday operations are carried out. Certified in accordance with European standards, this manufacturing unit is equipped with systems that are safe for both the workers and environment. An intense and extremely meaningful day's visit for all the guests, who got the chance and realise that the La Scala Theatre is not really that far from Bovisa district or Robbiano di Mediglia, because in all these places the roots of Mapei's success lie in hard work and the ability to make all kinds of different know-how converge on one single direction. This is the key to the success and growth of the "Grand Mapei Orchestra".

The Mapei plant in Robbiano di Mediglia (near Milan) is the Group's main manufacturing unit. Guests were greeted by the heads of the various departments, who illustrated how the machinery and logistics work.

MAPEI UK LTD

Efficient production and commitment to eco-sustainability

Established in 1989, Mapei UK Ltd moved to the West Midlands in 1999, and in 2004 cemented its commitment to the UK market with the completion of a brand new state-of-the-art manufacturing facility in Halesowen, near to Birmingham.
The complex accommodates manufacturing, stock, marketing, sales and technical services - all dedicated to the provision of efficient and friendly customer service - all under one roof. This 7.5 acre site is home to on-site training facilities, holding regular training and educational sessions.
Mapei UK, the British subsidiary of the Group, currently employs 111 members of staff to provide support and assistance to an ever increasing customer base of over 500. In addition to an expanding manufacturing plant and offices in the West Midlands, Mapei UK Ltd has a dedicated team of Specification Managers nationwide and an expert Technical Service Department based at UK Headquarters.
Manufacturing facilities at Halesowen are capable of producing up to 103,000 tonnes of products and over 100 products annually.

This photo. Mapei UK's headqurters are based in Halesowen, West Midlands (Great Britain).

Efficiency and Energy Saving

With continued improvement and investment being made during 2011, production efficiency in combination with product quality and consistency has impressively improved at Mapei UK. The subsidiary has reached a level of excellence that is comparably outstanding against some of the world's most prestigious and well known manufacturers.
Through an Integrated Management System (IMS) Mapei UK has been able to execute a methodical and proficient approach towards its production efficiency, product quality, in addition to sustainability and health & safety. The IMS approach has ensured that vast improvements have been made not only to the products themselves but the whole of the company's operation. The IMS has influenced the implementation of new processes and sub-processes across the entire product life cycle; from product design to disposal after use.
One contributing factor is the implementation of a Complete Maintenance Management System (CMMS). It is a one-stop-shop for the management of all service contacts, site calibrations, work orders and spare parts. Essentially the CMMS collates vital information throughout the production process which helps maintenance make more informed, effective decisions and therefore improve overall efficiency.

2008	2009	2010	2011
28%	49.8%	78.4%	83.6%

Figure 1. The table shows the increase in the production efficiency in the 2008-2011 period.

Efficiency has also been improved by the adoption of advanced Condition Monitoring techniques for production equipment. Machinery is monitored through thermography, oil sampling and vibration analysis whilst consumption of energy per tonne and heat generation is also analysed. If measures do not meet the required output, action can be undertaken before a serious fault or downtime occurs. Where production equipment fails to perform, it is upgraded or replaced to more suitable equipment.
This has consequential benefits in product quality and consistency which are also supported through Mapei's quality controlled lab testing. In 2011 up to mid December, approximately 29,000 controlled tests had been conducted, of which 97% met Mapei's high quality standards. These consistently excellent results also impact in reducing overall energy consumption. Improved plant efficiency has reduced the use of energy

2008	2009	2010	2011
3.3%	1.58%	0.13%	0.10%

Figure 2. The table shows the decrease of defective finished products, expressed as a percentage, of total production.

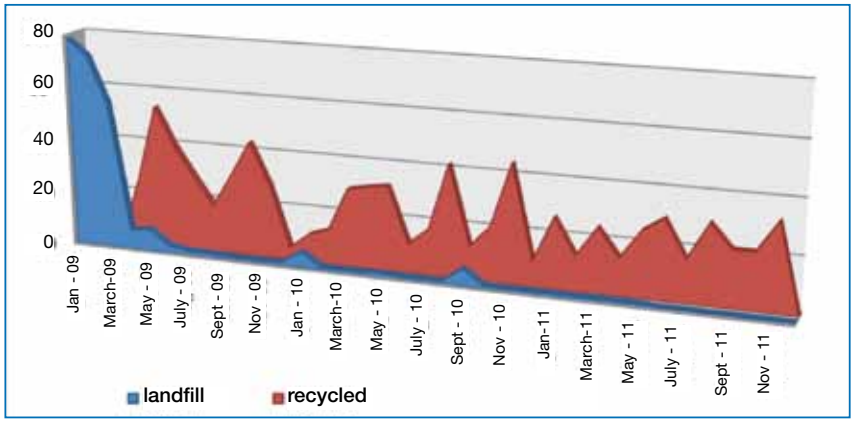


Figure 3. The graph illustrates the amounts of waste sent by Mapei UK to landfill and recycled.

through rework and also lowered the emissions of CO_2 on transportation in the event of product replacement when a failure occurs in the market.

Energy has also been saved by implementing an Intelligent Compressor Controller (ICC) which covers all three production lines and ensures that all lines operate at the minimum acceptable air pressure without compromising process requirements and reliability.

Commitment to Sustainability

Conscious of the company's carbon footprint, Mapei UK actively tries to reduce the amount of energy/electricity/fuel consumed and use local suppliers where possible. For example, although Mapei UK has doubled the size of its premise since 2008 and introduced multiple new production and office equipment, gas usage has only increased by 1.02% and electric decreased by 6.1% when comparing 2008 to 2011.

Production efficiency has also increased by a conscious effort to limit waste. All residues from production of EC1 products are used in the following batch and therefore no waste streams are generated. Mapei UK continually endeavour to reduce the amount of waste sent to landfill, including the total tonnage of scrap. The company actively recycles and limits the use of paper, plastics, cardboard and hessian bags in addition to waste powder accumulated from product production.

Mapei UK has also proactively found solutions to recycle waste that is traditionally difficult or impossible to recycle, this includes dirty and contaminated plastics, cardboard and hessian bags. For the past two years this waste has been processed and converted into Climafuel waste materials for use in cement kilns at a local West Midlands UK cement company, therefore reducing the amount of waste sent to landfill. This is not a common practise; this type of waste would normally be sent to landfill. Waste powder is also converted into solidified material, is crushed and segregated for use in construction and civil engineering road projects as hardcore surfacing materials. This is achievable because of the cement content in the waste powder. This technique of recycling is unique to Mapei; again this type of waste would normally be sent to landfill.

Mapei UK's outstanding manufacturing operation and resultant quality products have been accomplished through much investment resulting in many products achieving certification including 'EMICODE EC1' (for extremely low emissions of volatile organic compounds - VOC) by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.).

In April 2011 Mapei UK also became members of the U.K. Green Building Council, showing further commitment to sustainability in its manufacturing processes.

In September 2010 Mapei UK achieved ISO 9001 Quality Management System and in June 2011 achieved ISO 14001 Environmental Management System. External assessors were able to see Mapei UK's excellent manufacturing processes firsthand.

Above, left. Mapei UK's Quality Control Laboratory.
Above, right. The warehouse in the Mapei UK's manufacturing facility in Halesowen (UK).
Below. From left on: Colin Fradgley (Mapei UK Finance Director), Peter Dube (Quality Manager) and Eamon Lenihan (Health & Safety Environmental Manager) holding certification for ISO 14001 obtained by Mapei UK.

AT THE HEART OF LONDON DESIGN

An area dedicated to Mapei products in the new showroom of the English tile specialist Domus in the Clerkenwell district of London

Mapei and Domus, an English supplier of Italian ceramic tiles, have been working side by side with architects on prestigious projects for many years, and have become a formidable team for those seeking high quality tiles. There are numerous important testimonials of their collaboration in the United Kingdom, such as Terminal 5 at Heathrow Airport, the home of UK tennis in Wimbledon and the new Wembley Stadium (see following pages). It seemed only natural, therefore, that when Domus inaugurated a new showroom last December in the Clerkenwell district of London, that a part of the display area was dedicated to Mapei's innovative products and technology.

This large 700 m^2 showroom is a magnet for architects and designers, a place to showcase the latest ideas in materials, products and solutions for the most diverse technical specifications. It is an innovative, interactive space that can be adapted to suit different requirements, thanks to the use of elevated display units on wheels with few fixed zones. Solutions for installations on different types of substrates are illustrated in the most technical section of the display, with samples to demonstrate the vast spectrum of materials and systems that Mapei and Domus are able to supply. There is an area with 40 m^2 of surface dedicated to Mapei products and systems, including products for preparing substrates and for laying lightweight porcelain slabs, on heated substrates or in swimming pools, along with numerous other solutions to meet all requirements. There are

also Mapei systems on display for cementitious and resin flooring, as well as thermal insulation systems. Each system is presented in displays detailing the succession of layers of materials involved to reach the surface finish, from substrate preparation and waterproofing through adhesives to sealants.

Mapei displays are located by the area specifically designed to hold "CPD seminars" (Continuous Product Development), where the lates developments are showcased to designers. Jon Newey, Manager Director of Domus, underlined the important role of Italian excellence in the most innovative projects. And Mark Louch, Mapei UK Managing Director commented "We have worked alongside Domus with the vision to create a thriving and truly inspirational area. Clerkenwell will provide a unique, vibrant and productive space for designers, architects and specifiers to explore new concepts, ideas and emotions. We hope to share our enthusiasm for good design, products and systems and demonstrate our capability as a forward thinking, adaptive brand." And on the subject of looking to the future, it was a visit from Giorgio Squinzi, CEO of the Mapei Group, and Adriana Spazzoli, Mapei Group's Operational Marketing and Communication Director, to the Domus showroom in March that offered yet another occasion to celebrate Mapei's 75th anniversary, with an eye on the future and the projects that are still to come. And to keep looking forward, alongside the most prestigious partners.

Above, from the left. Giorgio Squinzi, CEO of the Mapei Group, and Adriana Spazzoli, the Group's Operational Marketing and Communication Director, celebrate Mapei's 75th anniversary at the Domus showroom. Jon Newey, Managing Director of Domus, with Giorgio Squinzi during the evening celebrations. Phil Breakspear and Mark Louch, Sales Director and Managing Director, respectively, for Mapei UK, with Giorgio Squinzi.
Below. Architects and designers visited the new Domus showroom in the Clerkenwell district in London, where a display is dedicated to Mapei products.

ECOBUILD 2012

Sustainable design & construction and renewable energy for the home of the future

Ecobuild exhibition, which this year took place at ExCeL, London from the 20th to the 22nd of March, is one of the world's most important events for sustainable design, construction and renewable energy. These are sectors for which the United Kingdom is certainly one of the most promising markets.

The driving forces behind the UK market's growth the various government incentives in place to promote the use of green technology. In addition to this, there is an overall clear objective: by 2020, 15% of all the energy produced in the UK must come from renewable sources.

Although the exhibition is based in London, the presence of both small and large Italian companies has increased ten-fold in these few short years.

The Italian companies offered a wide range of products, all of which carry the same main reoccurring themes: sustainability and technology.

As confirmed by Carlo Ratti, an architect and engineer from the Massachusetts Institute of Technology: "Technology is making the building industry increasingly sustainable", adding that "Italy is full of highly-advanced companies and numerous cutting-edge projects".

Amongst all the exhibitors, there was a host of ideas centred on a world being run by eco-friendly technology. To underline the global reach of the event, Ecobuild was also held in Shanghai in April, while in September there will be a exhibition in Mumbai, India.

Mapei took part in Ecobuild this year due to its long-term commitment to eco-sustainability. With significant investment in Research & Development, Mapei work to recognised organisational standards set by LEED (Leadership in Energy and Environmental Design) and BREEAM (BRE Environmental Assessment Method).

Mapei launched its external wall insulation and protective and decorative wall coating systems to the UK market at Ecobuild including MAPETHERM SYSTEM, SILANCOLOR, SILEXCOLOR and MAPE-ANTIQUE ranges. Mapei UK, the Group's British subsidiary, introduced these as part of its range of building products, which are already firmly established across Europe and the world.

MAPETHERM SYSTEM provides an external wall insulation system using sustainable alternatives to insulation material. It creates a feeling of warm comfort in the winter months and a feeling of cool comfort in the summer months.

The MAPETHERM SYSTEM aids to limit heat loss and guarantee great energy savings due to its excellent insulation properties and also prevents the formation of mould and dark stains.

The product has received much success worldwide in building solutions and is certified according ETA (European Technical Approval).

SILANCOLOR PLUS is a range of wall protective and decorative coatings which are suitable for use on exterior and interior wall finishes. It offers high adhesion and filling properties as well as excellent water repellence and vapour permeability with an attractive 'rustic' effect finish. Products from this range benefit from the BioBlock® anti-mould technology, which blocks mould at the root of the organism and DropEffect® water-repellent technology.

SILEXCOLOR SYSTEM offers a range of wall protective and decorative coatings. The system creates a uniform finish and covers small imperfections, whilst also having an attractive appearance.

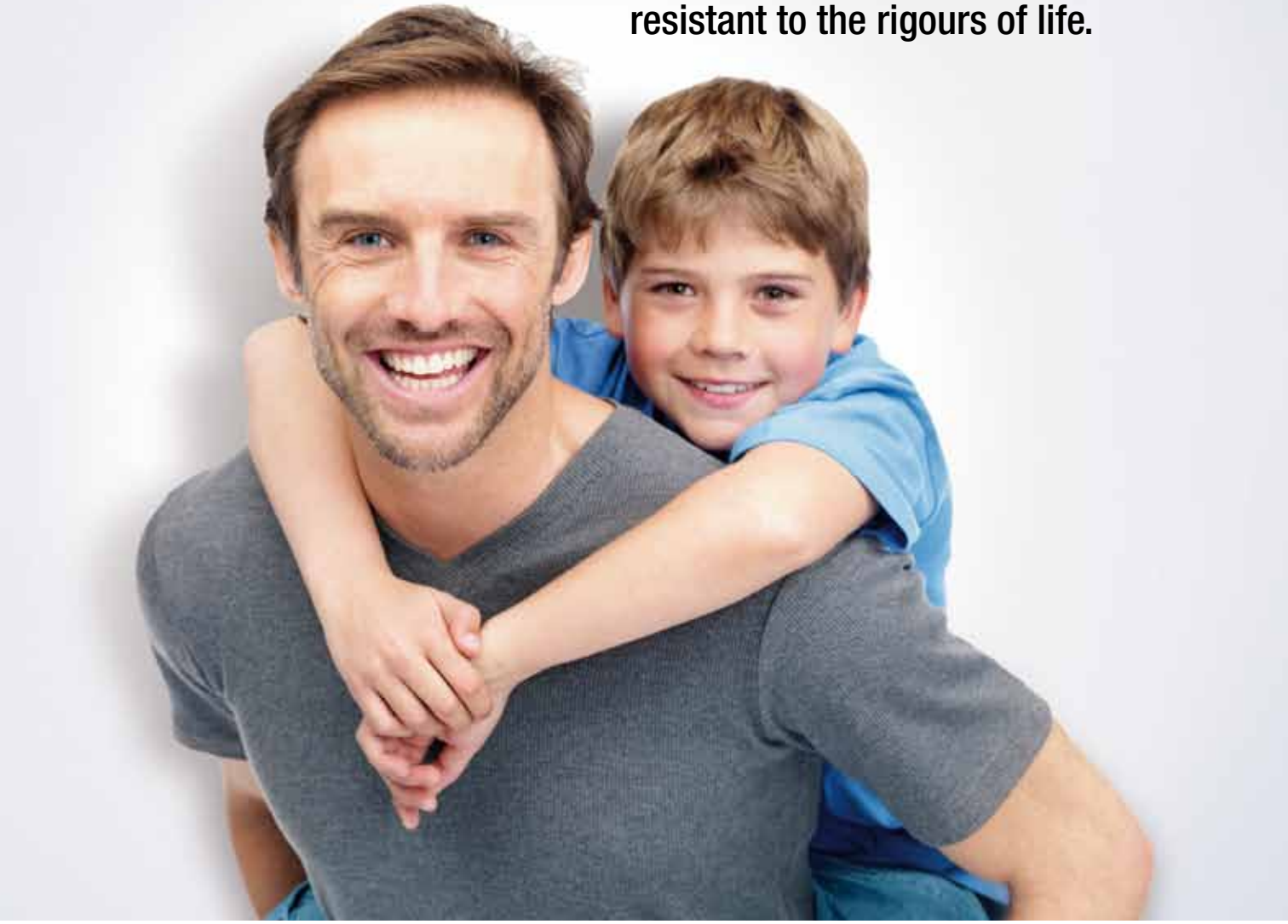
It is highly vapour-permeable, has a low retention of dirt and high resistance to alkali and UV in addition to having a good adhesion to porous substrates. Being silicate based, it forms a single body with the substrate without altering permeability to water vapour and is resistant to adverse weather. Coatings from both the SILANCOLOR and SILEXCOLOR ranges are available in a wide range of colours, created using the ColorMap® automatic coloring system.

The MAPE-ANTIQUE line includes a range of mortars and render binders which can restore masonry, bringing interior and exterior walls back to their original splendor. It is formulated to resolve rising damp, saline efflorescence and the deterioration of renders caused by sulphate salts and chlorides.

The next edition of Ecobuild will be held in London from the 5th to the 7th of March, 2013.

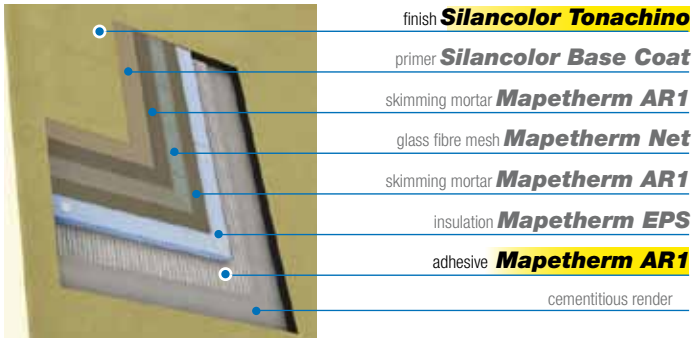
Left.
At Ecobuild 2012 Mapei displayed its systems for thermal insulation and protective and decorative wall coverings.

Harmony borne from a **solid bond** resistant to the rigours of life.



Mapetherm® System

Mapei research has developed a series of **adhesives** and **wall coatings** which guarantee the **best possible thermal insulation system** for buildings while increasing **wellbeing** and **energy savings**.



Mapei. Our experience provides your solutions

Let's take a deeper look together at: **www.mapei.com**

MAPEI®
ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

90-100 MILLION EURO

The value of supply contracts awarded to Italian companies

33

The number of new or restructured complexes

8 BILLION EURO

The amount spent to upgrade the transport network

1.2 BILLION EURO

The safety budget for the arenas and the City of London during the Olympics

24.9 MILLION TOURISTS

The number of visitors to the UK expected over the Summer: + 15% thanks to the Games

LONDON 2012

At the starting blocks for a sustainable future

From the 27th of July to the 12th of August, London hosted the 30th edition of the Olympic Games, and in so doing has become the first city to have played host on three separate occasions, following those held in 1908 and 1948. The capital of England constructed an event characterised by sustainability, and the aim was to organise Olympic Games which don't leave a series of unused or unusable architectural structures in their wake once they are over. "At the end of the Games, once all the medals have been awarded, it is my intention to make sure that they carry on changing everybody's lives for the better", wrote the British Prime Minister, David Cameron, in a letter to the Italian Newspaper *Il Corriere della Sera* on the 18th of April this year. "When the athletes and visitors arrive this Summer, they will find a completely new neighbourhood around the Olympic Park in the East End of London: an area that has been given a new lease of life and which, once the Olympics are over, will be a home for buildings and companies offering new jobs. We have paved the way for new design techniques using technology with low CO_2 emissions, to make London 2012 the first ever sustainable Olympics".

These words summarise the style and objectives of London 2012: to build architectural structures that will be open to everybody in the future, using "green" technology and eco-sustainable materials. A few examples: the Aquatics Centre, designed by the Anglo-Iraqi architect Zaha Hadid in the Stratford district, with three swimming pools and a recycling plant for the water, that will be reconfigured for public use after the Olympics; the Basketball Arena, an example of sustainable architecture, designed as a temporary steel structure that can be easily dismantled and then used again; the BMX circuit, which will be transformed into a velodrome for cyclists of all levels.

Most of the structures have been built in the Olympic Village which, as of 2013, will be known as the Queen Elizabeth Olympic Park,

In these photos.
From top to bottom, some of the new structures constructed for the London Olympic Games: the Basketball Arena, the London Velodrome, the Aquatics Centre, the Handball Arena and the BMX circuit.

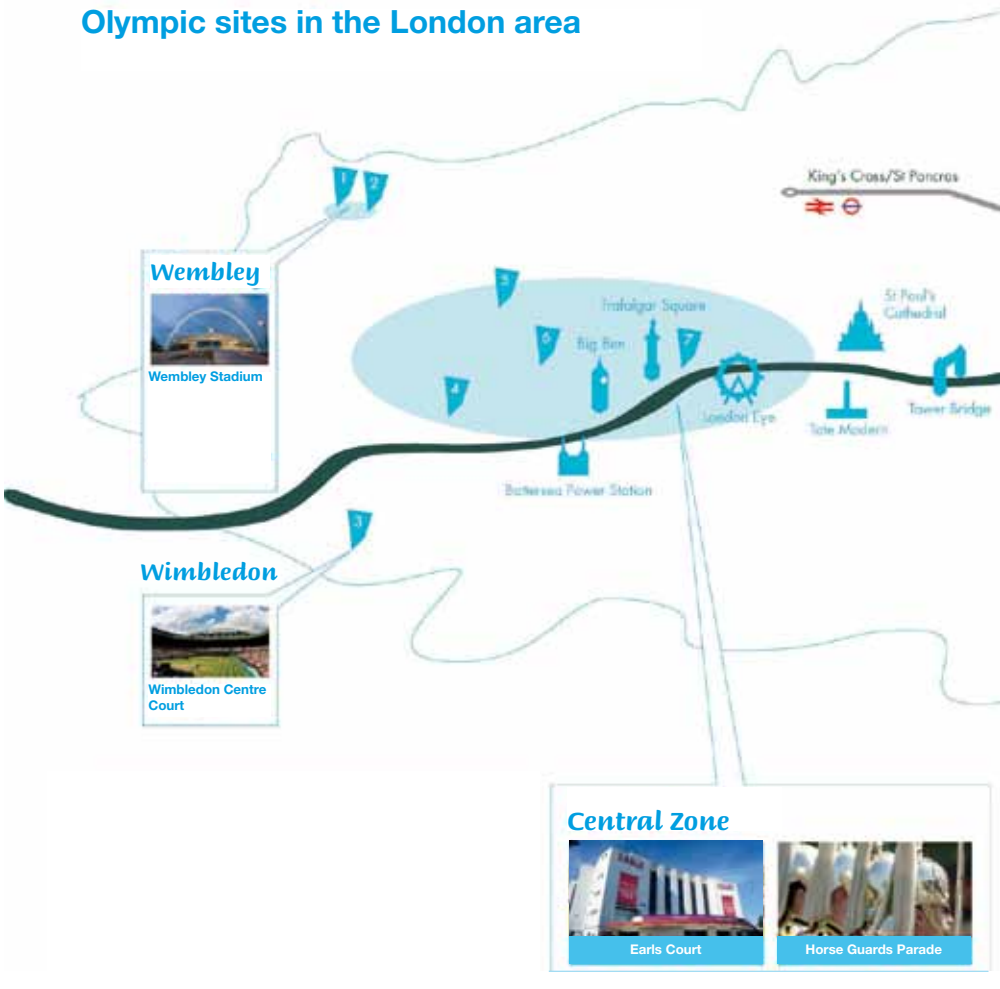
and will be converted into a new residential area with 3,600 apartments. "The most important green appointment in history", is how David Cameron defined the event, which will also be an important technological legacy thanks to the construction of eco-sustainable buildings.

A prime example is the Handball Arena, designed to reduce water consumption by 70%, with the external surfaces coated in recycled copper and a basement covered entirely in glass to create the most natural lighting and ventilation possible. Efficient co-generation technology and intelligent electricity metres will then be incorporated in the new homes, while new heating and lighting systems will be installed in a number of the buildings, which also use energy from renewable sources.

The public transport network has also been improved to discourage the use of private cars. This means that at least an estimated 80% of the athletes was able to reach their events in less than 20 minutes, and the Olympic Village was serviced by 10 railway links with a capacity of 240,00 passengers every hour. Apart from the transport network, there are also eight pedestrian zones and safe cycle paths.

And all this with a watchful eye on the construction schedule. In fact, the organisers of London 2012, led by the former Olympic 1500 metres champion Sebastian Coe, drew up a programme for the construction of the new infrastructures that enabled all the new structures to be completed, and most of them to be tested using specific procedures, with eight months still to go before the start of the Games. But apart from the infrastructures that will remain for the city, the Games have also had another positive effect. "By investing in new sports complexes", wrote David Cameron in his letter to *Il Corriere della Sera* "and launching the Schools Olympics initiative in institutes all around the country, we want to encourage new generations to try the joy and benefits of sport for themselves". And so through sport everyone's lifestyle can become more sustainable.

Olympic sites in the London area

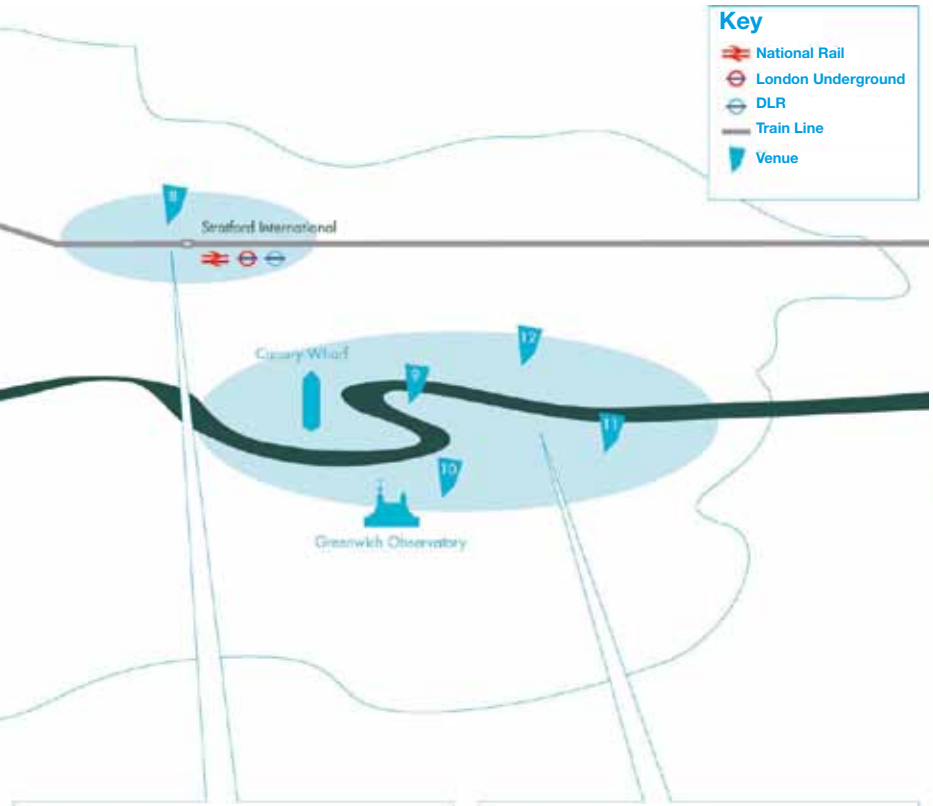


Events locations

The Games were held in thirty different locations, most of them in the English capital, with the remaining events held in various localities throughout England, Scotland and Wales. A mixture of new complexes, famous existing structures and temporary structures were used.

The areas which have benefited most by the construction of new structures are in the East End of London, one of the poorest areas in the city, which has been modernised and upgraded. The complexes are divided according to their geographical location:

- **Olympic Zone**
  The structures in the Olympic Park, which includes important structures constructed specifically for the Games, such as the Aquatics Centre, the Basketball Arena, the BMX circuit, the Handball Arena, the London Velodrome, the Olympic Hockey Centre and the Olympic Stadium.
- **River Zone**
  Situated to the east of the city on the banks of the River Thames, this zone includes the ExCel Convention Centre and the North Greenwich Arena, an existing structure that will host sporting events and concerts.
- **Central Zone**
  This area includes other locations in the city of London, such as Wembley Stadium, the temple of tennis in Wimbledon and Horse Guards Parade, dedicated to equestrian events.
- **Outside Greater London**
  All the other structures in Great Britain, such as Dorney Lake for the rowing events, the Weymouth and Portland National Sailing Academy for the sailing events, and five football stadiums in other cities, such as Glasgow, Manchester and Newcastle upon Tyne.



Olympic facilities in the UK

1. Lee Valley White Water Centre - Canoe Slalom
2. Eton Dorney - Rowing, Canoe Sprint, Rowing
3. Hampden Park - Football
4. Millenium Stadium - Football
5. Hadleigh Farm - Cycling (Mountain Bike)
6. Old Trafford - Football
7. St. James' Park – Football
8. Weymouth and Portland - Sailing
9. City of Coventry Stadium – Football

Olympic Park


Olympic Stadium


Aquatics Centre

River Zone


The Royal Artillery Barracks


North Greenwich Arena

Mapei contributed to several Olympic facilities by supplying its products:

- Olympic Stadium, London
- Olympic Tennis, Wimbledon, London
- Olympic Football-St. James Park Stadium, Newcastle-Upon-Tyne
- Olympic Football, Wembley Stadium, London
- Athletes Village, London
- Olympic Volleyball Courts, Earls Court, London
- Olympic Sailing Club, Weymouth, Dorset
- Olympic Training Base,Plymouth Life Centre
- Olympic Training Facilities, Bangor Leisure Centre
- Olympic Training Facilities, Basildon Sporting Village

Mapei also took part in relevant building projects, such as the Westfield Stratford CityShopping Centre including the flagship John Lewis store and the Cutty Sark in London, as well as the McLaren Technology Centre in Woking, Surrey.

ATHLETICS

OLYMPIC STADIUM

An imposing facility for high-level athletics

The London Olympic Stadium was officially inaugurated last year on the 6th of May. 40,000 spectators took part at the evening ceremony when there were exactly 2012 hours to go before the official Olympics opening ceremony to be held on the 27th of July. The structure was then tested for six days during the British Universities Athletics Championships.

The Olympic Stadium hosted the opening and closing ceremonies of the Games, as well as all the Olympic and Paralympics athletics events. It will later become the home ground for the local soccer team West Ham United and will continue hosting sporting and cultural events.

The capacity of the stadium during the Olympic Games was 80,000, and it will be later reduced to 60,000. Approximately 25,000 of the seats are permanent, while the remaining 55,000 seats are made from lightweight steel and cement that can be removed and transferred after the Games. According to the organisers, before this edition, an Olympic stadium had never been designed with so many removable elements as the one in London. Constructed specially for the Olympics, the stadium, as with the rest of the Olympic Park and most of the structures used for the London Olympics, it is located on an old industrial site. In order to build the stadium, more than 30 old buildings were demolished and the 6,500 m^3 of cement "recovered" from demolition work was used to make the substrates on which the new Olympic structures were built. The stadium is in an area surrounded by a river system, which is why it is also known as the "Island Stadium".

The rivers flowing around the stadium have been modified, and access to the stadium is over one of five bridges that connect it to the outside. The English architectural studio Populous designed the stadium, and the organisers are convinced that it is the most sustainable structure ever constructed for an Olympics, and complies fully with what seems to be the mantra of London 2012: "reduce, reuse, recycle".

In fact, low carbon cement has been used to construct the stadium (which means made in cement plants with low CO_2 emissions), less

IN THE SPOTLIGHT

ADESILEX G19

It is a two-component adhesive composed of an epoxy-polyurethane polymer and a special hardener. It is ideal for interior and exterior bonding of rubber, PVC, textile, needlepunch, and linoleum flooring, polystyrene and polyurethane panels, fibrous concrete, wood, sheet-metal, and plastic laminates.
ADESILEX G19 is an extremely strong and flexible all-purpose adhesive especially recommended for non-absorbent or moisture-sensitive surfaces. It is flexible, resistant to moisture and atmospheric agents, with high bonding characteristics on almost all materials commonly used in construction.
It can contribute up to **3 points** to obtaining the **LEED** (Leadership in Energy and Environmental Design) certification.

steel has been used for the structures, the consumption of grey energy (the amount of energy required to produce, transport and dispose of a material or product or guarantee a service) has been reduced by 40%, and the top ring of the stadium has been made from piping which carries the excess gas.

Inside the stadium there are the changing rooms, medical facilities and areas where the athletes may pray, reflect or meditate. The sales points for promotional material and refreshments are outside the stadium.

And as always over the years, Mapei didn't want to miss out on this great event, and has contributed by supplying products used in the construction of many of the structures used both during and after the Olympic Games, starting with the Olympic Stadium.

Mondotrack FTX, a special, award-winning sport track made from synthetic rubber by the multinational company Mondo based in Northern Italy (official supplier of athletic tracks during the last nine Olympic Games), was installed with ADESILEX G19 two-component, epoxy-polyurethane adhesive, which is ideal for humid environments and guarantees excellent resistance and elasticity while in use.

On these pages.
ADESILEX G19 two-component, epoxy-polyurethane adhesive was used to install the athletics track.

TECHNICAL DATA

Olympic Stadium, London
Period of Construction: 2008-2012

Year of the Intervention: 2011
Intervention by Mapei: supplying a product for laying the rubber athletic track
Client: LOGOC
Architect: Populous, London

Main Contractor: Sir Robert McAlpine
Laying Company and Supplier of Athletic Track: Mondo SpA from Alba (Italy)
Laid Material: Mondotrack FTX by Mondo SpA
Mapei Coordinators: Roberto Vigo and Angelo Nobili, Mapei SpA (Italy); Phil Breakspear, Mapei UKP

MAPEI PRODUCTS
Laying athletic track: Adesilex G19
For further information see the website wwww.mapei.com

TENNIS

WIMBLEDON CENTRE COURT

Mapei products were used to lay ceramic tiles at the home of tennis

Wimbledon is arguably the most recognised name in world tennis – the leafy suburb of London where the oldest and most prestigious tennis event is competed for. Mapei played a leading role in the rebuilding of the hospitality areas and terraces for visitors to centre court.

While the famous Championships have been held here every summer since 1922 and the rest of the courts are used for other matches and Club fixtures, Centre Court is preserved purely for the Championships themselves. Mapei took an active part in the modernisation of the areas of the Centre Court used by the public.

The schedule to carry out the work was very tight. Substrates made using rapid-drying screeds had to be laid for the successive installation of the terraces in the VIP area. The installers applied more than 2,000 m^2 of TOPCEM – special hydraulic binder for normal-setting, fast-drying, controlled-shrinkage screeds – on top of the old waterproof membrane in the terraced area overlooking the Centre Court, which is subject to heavy pedestrian traffic.

TOPCEM screed was also installed in the area of the Centre Court open to the general public. A wide selection of Mapei products were used to install bush hammered tiles and finely-polished tiles, in the hospitality areas, external terraces, internal restaurants, kitchen areas, bar areas and the most prestigious 'Debentures' entrances, where reserved seats bearing the owners name are located.

They were also used to cover the risers and the treads of the steps. ULTRAPLAN ECO ultra fast hardening, self-levelling and smoothing compound was first laid, followed by KERAQUICK deformable cementitious adhesive. KERAQUICK was mixed with LATEX PLUS latex to increase its flexibility.

The covering material was finished off by grouting with ULTRACOLOR PLUS.

TECHNICAL DATA

Wimbledon Centre Court, London (Great Britain)
Year of Construction: 1992

Year of the Intervention: 2007
Intervention by Mapei: preparing the substrates and laying ceramic tiles in the hospitality areas, external terraces, internal restaurants, kitchen areas, bar areas and entrances

Client: The Lawn Tennis Association, London
Contractors: Galliford Try e CSC Screeding
Laying Company: Wilson & Wylie
Laid Materials: ceramic tiles by Domus
Mapei Distributor: Domus, London
Mapei Coordinator: Alan Pepper, Mapei UK

MAPEI PRODUCTS
Preparing the substrates: Eco Prim R, Mapetex System, Ultraplan ECO
Laying ceramic tiles: Keracolor FF, Keracolor GG, Keraquick, Latex Plus, Mapesil AC
For further information see the website: www.mapei.com

WEMBLEY STADIUM

Ceramic tiles were laid with Mapei products in several areas of the complex

Wembley Stadium was built for the 1924 British Empire Expo, opened by King George V in 1923 and named the Empire Stadium. The 1948 Olympic Games were held at the stadium. The old stadium was knocked down in 2003 and replaced by the new Wembley Stadium, designed in the form of a bowl capable of accommodating 90,000 spectators, all seated.

The new stadium, designed by Foster & Partners, has a striking steel arch built on top of the North Stand, which is 133 m high and 315 m long, holding up the stadium roof; the roof is divided into three sections which, in the case of rain, can be closed in approximately 40 minutes. It took 90,000 m^3 of concrete and 23,000 tons of steel to build the new sports facility; at times over 3,500 builders were involved in the construction work.

Mapei products were used on various parts of the overall structure. ULTRAPLAN ECO self-levelling smoothing compound was used for preparing the floor substrates in the main lobbies, all the restaurants, the toilets and locker rooms for the athletes.

To improve the compound's adhesion to the concrete surface, a layer of ECO PRIM R primer in water dispersion (N.B. this product has now been superseded by ECO PRIM T) was applied. MAPETEX SYSTEM was used to create an antifracture and removable membrane before laying the tiles: MAPETEX non-woven fabric was bonded to the substrate using KERAQUICK adhesive mixed with LATEX PLUS latex admixture. KERAQUICK+LATEX PLUS was also used to install 60x60 cm and 60x40 cm ceramic tiles on the floors in the lobbies, restaurants, toilets, athletes' locker rooms and curved porcelain tiles on the stairs.

The tile joints were grouted using KERACOLOR GG cementitious mortar in anthracite. The expansion joints were sealed using MAPESIL AC silicone sealant in the same colour.

KERAQUICK mixed with LATEX PLUS was again used in the athletes' locker rooms for installing the porcelain tiles on the walls; the grouting was carried out using KERACOLOR FF, again anthracite-coloured, and the expansion joints were sealed using MAPESIL AC. The same products were used for installing the porcelain tiles in the toilets for the spectators.

TECHNICAL DATA

Wembley Stadium, London (Great Britain)
Year of Construction: 1924

Period of the Intervention: 2005-2006
Intervention by Mapei: preparing substrates, laying ceramic tiles in the main lobbies, restaurants, toilets and locker rooms for the athletes
Project: Foster & Partners, HOK Sport
Client: Wembley National Stadium Ltd
Contractor: Multiplex
Laying Company: WB Simpson & Sons Ltd
Mapei Distributor: Domus, London
Mapei Coordination: Phil Breakspear, Mapei UK (Great Britain)

MAPEI PRODUCTS
Preparing the substrates: Topcem, Ultraplan Eco
Laying ceramic tiles: Keraquick, Latex Plus, Ultracolor Plus
For further information on these products see the website www. mapei.com.

OSPREY QUAY

The sailing club overlooks one of the most beautiful stretches of the English coast

In these images.
The village which hosted the competitors for the Olympic sailing events has been built next to the Weymouth & Portland Academy. MAPELAY waterproof sheets were laid and vinyl flooring was bonded using ADESILEX G19 adhesive in the shower units.

Situated in the heart of the green fields of the Dorset countryside in an area to the south of London, Weymouth Bay and the port of Portland stand out along the most beautiful stretch of English coastline. The port covers an area of 8 km^2 and, thanks to its exposure to favourable winds and protection from the large waves created by currents flowing from Chesil Beach, it is considered an ideal spot for sailing. This area provides English sailors with some of the best stretches of open sea in Great Britain, and it is precisely this area that has been selected to hold the Olympic and Paralympic sailing events.

The building which played host to the participants and organisers of the Olympic events is the Weymouth and Portland National Sailing Academy. Since 2005 up to today, the Sailing Academy has hosted national and international sailing events and promoted sailing by organising courses for all levels. They also offer their services to events and conventions and to mooring boats throughout the year. The construction building is two storeys high, and inside members have the use of a gym, seven conference and meeting rooms, an events area with catering facilities and a bar, offices, a cafeteria and two large terraces overlooking the sea.

The building extends lengthways and has a launch skid, two jetties, thirty walkways, loading rigs, a boat yard and a car park. 20% of the electrical energy required comes from a photovoltaic plant, while the boats are all washed using rainwater collected from the roof. Thanks to its high quality structure and direct access to the bays of Weymouth and Portland Harbour, in 2005 the Academy was selected to host events for the London 2012 Olympic and Paralympic Games.

Waterproofing and Installation

The Olympic and Paralympic sailing events usually involve around a thousand people between participants, trainers and race officials. The organisers originally toyed with the idea of hosting the athletes on a cruise liner moored in the Weymouth bay. Following concerns raised by the competitors, a group of apartment blocks with two, three and four-

IN THE SPOTLIGHT

MAPELAY

It is a fibreglass-reinforced PVC waterproofing and isolating sheet, ideal for internal laying of resilient and carpet flooring on cracked or dirty substrates subject to rising damp.
The back of the sheet is covered with small, PVC foam blisters which, in contact with the substrate, form a gap in which air may circulate freely.
It is extremely flexible and adapts perfectly to the substrate, it is easy to cut, does not absorb damp, is perfectly stable and resistant to changes in temperature.
MAPELAY also improves the thermal insulation and soundproofing characteristics of the substrate on which is laid. It is dimensionally stable.

bedroom apartments were designed for Osprey Quay, not far from the Weymouth and Portland National Sailing Academy, which will then be converted into housing units and placed on the market.
The buildings have been built using low-carbon cement (that is, with low CO_2 emissions), are timber framed, incorporate mechanical ventilation with heat recovery and high-performance windows to provide good insulation and are heated by a biomass boiler and a heat network. For the 80 shower units (each measuring 120x120 cm), anti-slip safety floorings covering a total area of approximately 115 m^2 were installed using Mapei products. The first step was to lay MAPELAY fibreglass-reinforced PVC waterproofing and isolating sheet. A particularly important characteristic of MAPELAY is that it may be easily removed, leaving the substrate in its original condition without the need for particular cleaning operations.
This was especially important for the Osprey Quay flats project, since the buildings will be converted into residential units once the Olympics are over.
The anti-slip vinyl flooring was than bonded in place using ADESILEX G19 two-component epoxy-polyurethane adhesive, ideal for humid environments.

TECHNICAL DATA

Osprey Quay, Weymouth, Dorset (Great Britain)
Period of Construction: 2007-2011

Year of the Mapei Intervention: 2011
Intervention by Mapei: laying a waterproofing sheet and installing vinyl flooring in the shower rooms

Project: Olympic Delivery Authority
Contractors: Dean&Dyball, Dean&Reddyhoff
Laying Company: Somerset Flooring
Laid Materials: Vinyl flooring
Mapei Co-ordinators: Roberto Vigo, Mapei SpA (Italy); Phil Breakspear, Mapei UK (Great Britain)

MAPEI PRODUCTS
Preparing the substrates: Mapelay
Laying vynil coverings: Adesilex G19
For further information see the website www.mapei.com.

THE ATHLETE'S VILLAGE

An ambitious urban planning programme has transformed an area on the outskirts into a residential neighbourhood

The Olympic Park in the East End of London was the main hub for the Olympic Games. This is the location for the "beating heart" of every Olympics, the Athlete's Village.

From the 27th of July to the 12th of August, and again from the 29th of August to the 9th of September when the Paralympic Games were held, approximately 16,000 athletes from every nation taking part in 300 competitions in 26 different disciplines had their headquarters in the Village.

Located in the borough of Stratford in East London, this residential complex housed the athletes and officials in 62 blocks divided into 2818 apartments, with sleeping accommodation for a total of 17,320 people. The Village is in an ideal location: the vast majority of competitors – 80% of the athletes for the Olympic events and 95% of the athletes for the Paralympic events – were able to reach the site of their races in just 20 minutes.

In fact, the Village can be quickly reached using the underground, or the DLR light railway built specially for the occasion. And even though the apartments do not have catering facilities, which will be added later when the Village is converted for residential use, there is also a host of restaurants and bars.

It has taken five years to build the Village, one of the most important urban development projects recently executed in Great Britain, and to meet the deadline teams have been working round the clock, seven days a week. Construction of the Village is part of a vast, articulated urban development and reclamation project, the so-called Stratford City Masterplan. The projects objective is to redesign an entire borough in East London, which until just a few years ago was run down and abandoned. Following the Games, around half the apartments will be put on sale at affordable prices. The Village comprises apartment blocks of 8 to 12 storeys, covered with pre-cast concrete panels mounted on a rigid, rectangular metallic framework

Mapei Has Played its Part

Mapei installation systems and substrate products were used in apartment block 9, following a specific request from the company responsible for substrate preparation and installation of the ceramic wall and floor coverings within the main atrium. The first step was to build screeds on the part of floor where the ceramic tiles were to be installed. To prepare the installation beds, MAPECEM special quick-setting and drying, controlled-shrinkage hydraulic binder for screeds was recommend-

IN THE SPOTLIGHT

ULTRACOLOR PLUS

It is a fast-setting and drying, high performance, anti-efflorescence, water-repellent mortar grout for joints from 2 to 20 mm, with DropEffect® and anti-mould with BioBlock® technology. It is classified as class **CGWA** according to **EN 13888**. It is ideal for internal and external grouting of floors and walls in all types of ceramic (double-fired, single-fired, klinker, porcelain, etc.), terracotta, stone material (natural stone, marble, granite, agglomerates, etc.), and glass and marble mosaic. It is **EMICODE EC1 Plus** (with very low emission level of VOC)-certified, recognised by GEV. It can contribute up to **3 points** to obtain the **LEED** (Leadership ion Energy and Environmental Design) certification.

On these pages. The Athlete's Village in the East End of London. Mapei supplied products to install ceramic tiles in one of the apartment blocks.

ed. Thanks to the special characteristics of MAPECEM, substrates feature high mechanical strength and the installation of the flooring could be carried out just 4/5 hours after the screed casting. Thanks to the quick-drying and setting properties of MAPECEM, operations were programmed so that, while one team cast the screed and then levelled the substrate, a second team of floor layers could start installing the flooring in the areas where it had already hardened. Also, screeds made using MAPECEM are particularly suitable for underfloor heating systems, in this case specifically chosen to resist the high volume of pedestrian traffic. Porcelain tiles were installed on the floors and walls for a total area of 300 m^2.

The floor tiles (measuring 120x60 cm) were installed using KERAQUICK high-performance, quick-setting cementitious adhesive with no vertical slip, ideal for bonding ceramic tiles and stone materials on internal and external surfaces. The tiles for the walls (measuring 120x20 cm) were installed using KERAFLEX MAXI cementitious adhesive with class S1 deformability according to EN 12004 standard. Some of the characteristics of this product to remember are its excellent adhesion to cementitious substrates, good deformability, extended open time and no vertical slip.

The product is distributed on the British market by Mapei UK.

The last step was to grout the joints with ULTRACOLOR PLUS high-performance, quick-drying mortar. Thanks to innovative DropEffect® and BioBlock® technology, this product guarantees perfect water repellence and resistance to mould.

After the Olympic adventure, the Mapei installation products guarantee that the surfaces will be durable and long lasting.

TECHNICAL DATA

Plot. n. 9, Athlete's Village, London (Great Britain)
Period of Construction: 2007-2012

Year of the Mapei Intervention: 2011
Intervention by Mapei: installing ceramic tiles on walls and floors in the main atrium

Project: Eric Parry Architects
Contractor: Sir Robert McAlpine
Laying Company: John Sisk and Sons Ltd
Laid Materials: Stonetech porcelain tiles by Domus
Mapei Distributor: Domus
Mapei Coordinator: Roberto Vigo, Mapei SpA (Italy); Phil Breakspear, Mapei UK (Great Britain)

MAPEI PRODUCTS
Screeds Installation: Mapecem
Laying wall and floor ceramic coverings: Keraflex Maxi (N.B. the product is distributed on the British market by Mapei UK), Keraquick, Ultracolor Plus.
For further information see the website www.mapei.com.

FOOTBALL

ST. JAMES' PARK FOOTBALL STADIUM, NEWCASTLE UPON TYNE, TYNE AND WEAR

This stadium has been the home ground of Newcastle United FC since 1892, the local football team of Newcastle upon Tyne, a city close to the border between England and Scotland. With a seating capacity of 52,000, the stadium was inaugurated in 1880 and is one of the oldest in the United Kingdom. The stadium, situated in the city centre just a short walk from the main railway station, has been modified on various occasions since it was built, and is the only one in north-east England suitable for international football matches. During the Olympics, it hosted the quarter finals of the men's and ladies' football tournaments. Mapei systems were used to install the tiles in the changing rooms and in external areas. The products recommended were ADESILEX P9 and KERAQUICK high-performance cementitious adhesives, while ULTRACOLOR PLUS mortar was used to grout the joints.

VOLLEYBALL ARENA, EARLS COURT, LONDON

The sports arena that hosted the volleyball events during the Games is one of the biggest structures ever built for the Olympics. Apart from the playing courts, the structure also has changing rooms for the teams, a press office and spectator areas.
At the end of the Olympic and Paralympic Games the Arena, situated alongside the River Thames, will be closed, and the structures will be reused or transferred to another part of Great Britain. To make the screeds, Mapei recommended ULTRAPLAN RENOVATION SCREED self-levelling compound (manufactured and distributed in Great Britain by Mapei UK), ideal for substrates requiring high resistance to pedestrian and wheelchair traffic. For the wooden flooring, the levelling compound was reinforced with FIBREGLASS MESH, which is now superseded by MAPENET 150.

VOLLEYBALL

BASILDON SPORTING VILLAGE, ESSEX

Considered to be one of the best sports centres in the Essex region and the whole of south-east England, the Basildon Sporting Village has been upgraded specially for the Olympic Games. It was used as a training centre for swimmers before the main events held at the Aquatic Centre in London. New services and plant equipment have been installed, in particular the regulation-size 50 metre pool. Mapei recommended the use of KERAFLEX and KERAQUICK cementitious adhesives, which were used to install the tiles in the 50 metre pool, in a second pool (the Leaner pool), in areas around the pools, in the showers and in the changing rooms. KERAQUICK was also used to install the tiles in the foyer, in the corridors and on the stairs. In the showers area, frosted glass tiles were also installed using ADESILEX P10 and ISOLASTIC. ULTRACOLOR PLUS was used to grout the joints. Overall, approximately 6,000 m^2 of ceramic tiles were installed.

PLYMOUTH LIFE CENTRE, PLYMOUTH, DEVON

At the end of March, the new Plymouth Life Centre was inaugurated. Open to the general public, this complex has a 50 metre pool with ten lanes, a large diving pool, special areas for various sports and general fitness, an artificial climbing wall and a bowling alley. During the Olympics, the Plymouth Life Centre hosted the training sessions of the Canadian and Lithuanian swimming and diving squads. Mapei products were chosen to install the ceramic tiles in the swimming pool and diving pool and in various service areas, using the adhesives KERAFLEX, KERAPOXY, KERAQUICK+ LATEX PLUS. The joints were grouted with ULTRACOLOR PLUS.

THE SAILING SHIP THAT FLOATS ON GLASS

After five years of repair work, the famous Cutty Sark is once again at sail in ideal conditions

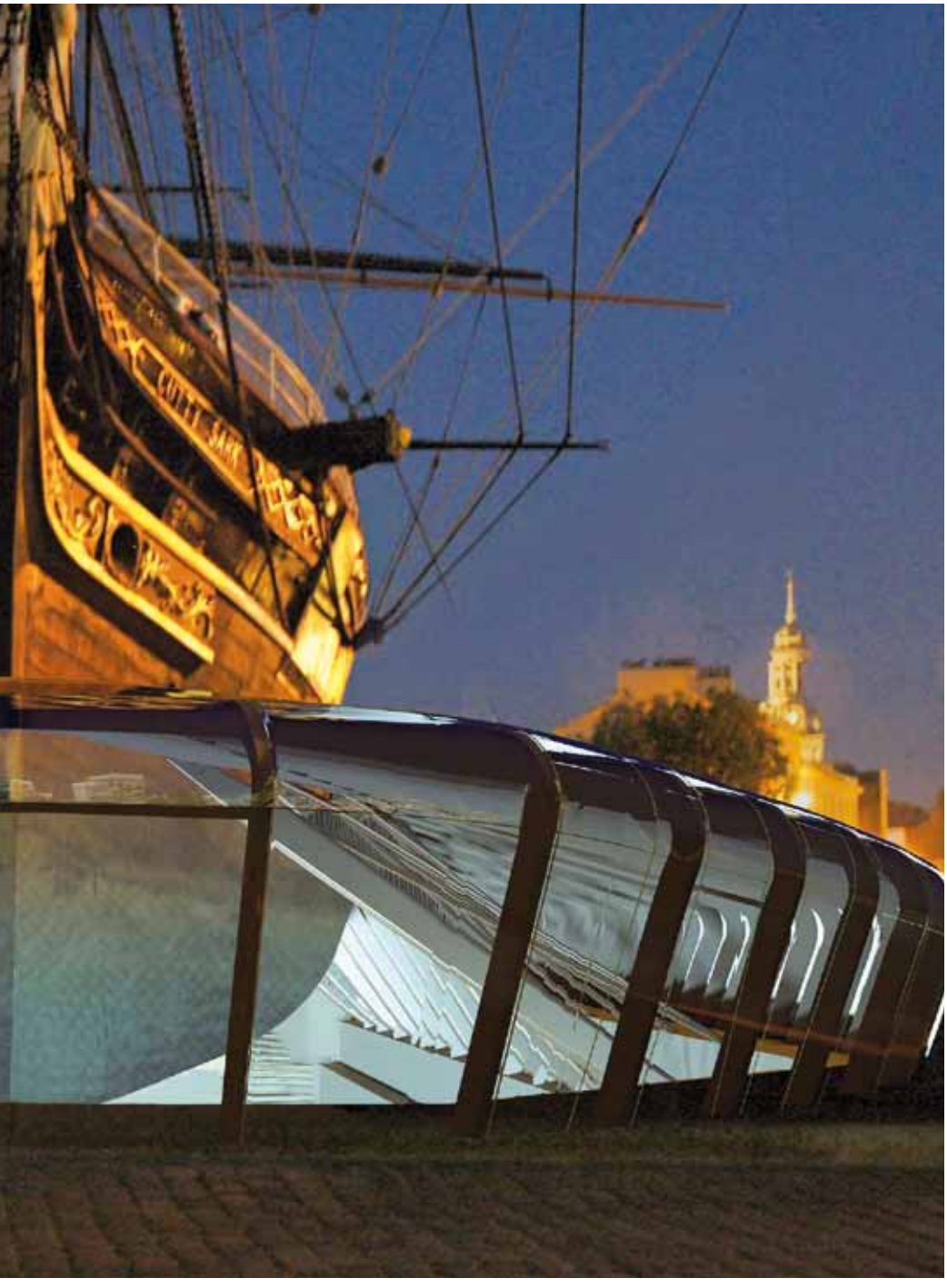
The Cutty Sark ship was built in 1869. It had been designed by Hercules Linton for the London ship-owner John Willis who wanted a merchant vessel capable of winning the China to Great Britain sailing race. This was an annual event, with the title going to the first ship to bring back a cargo of the new harvest of tea. History threw a spanner in the works, however, with the inauguration of the Suez Canal in the same year. It proved to be a history-changing event, allowing the faster, more agile steam ships to gain supremacy by going through the Mediterranean without having to circumnavigate Africa, and so shorten the route between the Indies and Europe.

The Cutty Sark continued to challenge the other "tea clippers" (a term used for the very fast sailing ships of the time, with three or more masts and a square rig, carrying their cargo of tea) until 1885, when it was used to carry wool from far-off Australia to Great Britain, and managed to carry out the Sydney to London crossing in just 73 days, even quicker than the first steam ships. It was then sold to the Portuguese, until it was finally recovered and brought back home in the 1920's, when the widow of the last owner donated it to the Incorporated Thames Nautical College for use as a training ship for naval cadets.

In 1954, the Cutty Sark was put on show to the general public in the port of Greenwich on the banks of the River Thames, and became such a famous, popular tourist attraction that it was considered a monument to Britain's cultural and architectural heritage.

In 2007, the ship was seriously damaged by a fire, but fortunately, because of previous restoration work, the masts, equipment for the sails and part of the structure below deck had been removed. The ship's three decks, however, were seriously damaged.

On the 25th of April this year, following complex rebuilding work costing more than fifty million pounds, the new Cutty Sark was officially inaugurated by Queen Elizabeth II and



In these images. The Cutty Sark ship sits on a glass base allowing visitors to admire the hull and keel.

In these images.
Porcelain tiles were installed on floors and walls in various areas using KERAFLEX.

IN THE SPOTLIGHT

KERAFLEX

It is an improved **(2)** slip resistant **(T)** cementitious adhesive **(C)** with extended open time **(E)** classified as class **C2TE** according to **EN 12004** standard. It is ideal for interior and exterior bonding of ceramic and porcelain tiles, stone materials and mosaics of every type on floors, walls and ceilings. It is also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit®, sound-deadening/reduction panels, etc.
It is a grey or white powder composed of cement and graded aggregates. When mixed with water it turns into a mortar which is easily workable; highly thixotropic, and with extended open time. It features perfect adherence to all materials normally used in building; it hardens without appreciable shrinkage.
It is **EMICODE EC1 R Plus** (with very low emission level of VOC)-certified, recognised by GEV. It can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.

the Duke of Edinburgh. The inauguration took place in what is to be a remarkable year for Great Britain. In fact, in March - July 2012 the nation celebrated the Queen's Diamond Jubilee (60 years on the British throne, a record previously held only by Queen Victoria) and the inauguration of the 30th Olympic Games on July 27th.

A "Made-in-Italy" Installation

The Cutty Sark is now part of a real museum designed by the English architect Nicholas Grimshaw, characterised by its glass ceiling which surrounds the side of the hull as if it were sea water. And instead of floating on the waters of the Thames, the sailing ship has been raised 3 metres off the ground: a feat of engineering which allows visitors to actually walk under the ship, and admire the elegant lines of its hull and get a close-up view of the keel, the secret of its success.
Under the hull there is an inter-active exhibition, where visitors can discover the history of the sailing ship. It is also possible to visit the ship itself, from the deck to the hold, and even the berths where the sailors slept.
The entrance to the Cutty Sark is in the glass gallery, which also leads to the museum, the cafeteria and the restaurant located under the stern of the ship.
Mapei also wanted to put its mark on the new chapter in the life of this three-masted clipper, by supplying products to install approximately 1000 m^2 of porcelain tiles (in sizes 120x60 cm, 60x60 cm and 60x30 cm) produced by Domus. KERAFLEX adhesive was recommended for installing the floor tiles in the reception area, the bathrooms and the cafeteria area. This is a cementitious adhesive ideal for

bonding all types of ceramic tiles, mosaics and stone (if not sensitive to damp) on internal and external walls and floors. KERAFLEX has particularly good thixotropic proprties, may be applied on vertical surfaces without the tiles slipping, bonds perfectly to all materials, hardens without noticeable shrinkage and has extended open time.

ULTRACOLOR PLUS high performance mortar in 299 limestone colour shade was then used to grout the joints. This anti-efflorescence, quick-setting and drying, polymer-modified mortar is recommended for grouting joints from 2 to 20 mm wide. It also has BioBlock® technology which reduces the formation of mould, and DropEffect® technology which makes the joints water-repellent.

Following an intervention lasting five years, one of the most complex conservation projects ever carried out on a historical ship was finally launched, conserving the original spirit of the Cutty Sark.

Above.
ULTRACOLOR PLUS anti-efflorescence mortar was used to grout the floor joints.

Below.
Adriana Spazzoli, Mapei Group's Operational Marketing and Communication Director, visited the Cutty Sark with some Mapei guests.

TECHNICAL DATA

Cutty Sark, London (Great Bretain)

Period of the Intervention: 2011-2012
Intervention by Mapei: laying porcelain tiles on the floors of several areas
Project: Grimshaw Architects Ltd

Contractor: Ellmer Construction
Laying Company: Stone Concepts Ltd
Laid Materials: porcelain tiles by Domus
Mapei Distributor: Domus
Mapei Co-ordinator: Roberto Vigo, Mapei SpA (Italy); Phil Breakspear, Mapei UK

MAPEI PRODUCTS
Laying ceramic tiles: Keraflex
Grouting the joints: Ultracolor Plus
For further information see the website www. mapei.com

WESTFIELD STRATFORD CITY

The largest shopping centre in Europe

Inaugurated a year ago, Westfield Stratford City is the largest urban shopping centre in Europe. This complex, which rises into the skyline of Stratford, a neighbourhood in the East End of London, is very close to the Olympic Stadium and the Aquatics Centre, and has become the main hub of the upgrading programme of one of the most run down areas in London.

The area covers almost 300 hectares and was bought by the Australian company Westfield Group. Approximately one and a half billion pounds have been invested in the construction of the centre, and it is now an important commercial hub serving around 4 million people. During the Olympic period, when Westfield Stratford City benefited from the passage of almost all the visitors heading to the Olympic events, the management of the shopping centre saw about 7 million clients in just one month. These really are mind-boggling figures that make this an important investment, but certainly what seems a money-spinner.

Westfield Stratford City is a combination of commerce, entertainment and refreshments. There are more than 260 stores to suit all pockets in the complex, a large area called The Village where clients can shop for leading-brand designer clothes, 70 coffee shops and restaurants offering 25 different types of cuisine, the Great Eastern Market, the first ever "local" market inside a shopping centre, a multiplex cinema with 16 screens, fitness and spa areas, a bar on the top floor with a panoramic view of the Olympic Park, three hotels, a business centre and the largest casino in the United Kingdom.

For those arriving by car, there is a car park with 5,000 parking spaces. The shopping centre can also be reached using a highly efficient transport network because, thanks to investments made in the area before the Olympics, Stratford has become one of the main hubs of the London transport network. Overall, there are 10,000 people working permanently in the shopping centre.

On these pages.
The Westfield Stratford City shopping centre is located in the East End of London.

The construction of Westfield Stratford City has favoured energy efficiency and environmental sustainability, through an efficient use of natural light, high-efficiency artificial light, reduced carbon dioxide emissions, separation of refuse and waste material and the use of rainwater, which is collected and then used for to flush the lavatories. What is more, the offices were awarded an excellent score through the BREEAM (BRE Environmental Assessment Method) programme.

Mapei Has Also Played Its Part

With a similar form to its "twin" inaugurated in the West End of London in 2008, the multi-storey complex has a total surface area of 175,000 m^2.

The flooring companies suggested contacting the Mapei UK Technical Service Department for advice on specific products and systems for the substrates, and to install 6,000 m^2 of porcelain tiles subjected to intense pedestrian traffic all year round. To make the substrates for the tiles, ULTRAPLAN MAXI self-levelling, ultra quick-hardening smoothing compound was first applied, on which tiles may be installed after just 24 hours. This was a key factor when choosing the most suitable

IN THE SPOTLIGHT

KERAQUICK

It is an improved **(2)** fast setting **(F)** cementitious **(C)** adhesive and slip resistant **(T)** and deformable classified as **C2FT S1** according to **EN 12004** standard.

It is ideal for bonding to ceramic and mosaic tiles of every type and stone materials and insulating materials on cementitious screeds, cement-based renders, cured concrete, existing floors in interiors and exteriors. KERAQUICK is a grey or white powder composed of a blend of special cements, selectively-graded aggregates, synthetic resins and setting accelerators that develop high bonding strength only 2-3 hours after installing. For this reason floors can be set to light traffic in 24 hours and can be walked on after only 2 hours.

It can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.

product. It played a key role in keeping to the tight schedule, and met the requirements of the client for a product with high mechanical strength.

Once the substrate had been constructed, MAPETEX anti-fracture membrane was installed using KERAQUICK quick-setting cementitious adhesive mixed with LATEX PLUS diluted with 50% of water. After a few hours the tiles were bonded, again using KERAQUICK high-performance adhesive mixed with LATEX PLUS diluted with water 50% of water. The joints were grouted with ULTRACOLOR PLUS high-performance mortar with DropEffect® technology to guarantee excellent water repellence and BioBlock® anti-mould technology. The expansion joints were then sealed with MAPESIL AC sealant.

The shopping centre has a supermarket and two large department stores. In the John Lewis department store, which has a sales floor of 22,000 m^2, the tiles were installed with ELASTORAPID quick-setting and drying adhesive, while the joints were grouted with ULTRACOLOR PLUS.

In the Urban Outfitters showroom, a seamless cementitious floor was made using ULTRATOP self-levelling, ultra quick-hardening mortar with a decorative finish, ideal for making flooring particularly resistant to abrasion. When applied pure, ULTRATOP is suitable for industrial floors, while if it is polished, it is particularly suitable for showrooms, offices and apartments.

An important investment in an upgraded urban area was carried out with Mapei products and systems applied with great success.

Above. In the Urban Outfitters showroom, a seamless cementitious floor was made using ULTRATOP self-levelling mortar.

TECHNICAL DATA

Westfield Stratford City, London (Great Britain)
Period of Construction: 2006-2011

Period of the Intervention: 2006-2011
Intervention by Mapei: supplying products for preparing the substrates, laying porcelain tiles and building cementitious floorings

Client: Westfield Group
Contractor: Westfield Group
Laid Materials: porcelain tiles, cementitious floorings
Laying Company: Grants of Shoreditch
Mapei Distributor: Domus
Mapei Coordinators: Roberto Vigo, Mapei SpA (Italy); Phil Breakspear, Mapei UK

MAPEI PRODUCTS
Preparing the substrates: Mapetex, Ultraplan Maxi
Laying porcelain tiles: Elastorapid, Keraquick, Latex Plus, Mapesil AC, Ultracolor Plus
Building cementitious floorings: Ultratop
For further information see the website www.mapei.com

Keraflex Maxi S1

Less dust for everyone

- 90% DUST

From the Mapei Laboratory experience innovative technology: “LOW DUST” -90% dust during mixing, application and use compared with traditional Mapei cementitious adhesives

- Especially suitable for laying large-format tiles
- Highly deformable
- No vertical slip
- Extended open time
- New formula with LOW DUST technology

Low Dust

CONFORME ALLA NORMA EUROPEA EN 12004 C2TE S1 MAPEI ADESIVO CEMENTIZIO PER CERAMICA

www.mapei.com

MAPEI®

ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

NEVER STOP PED

On the 2nd and 3rd of March, a general meeting was held in Milan for the Mapei SpA's Italian sales team

Two intense days of brainstorming, during which numerous discussions about the building industry were held and strategies were developed to be even more incisive on the Italian market.
All this in an open, professional atmosphere that, once again, demonstrated the spirit that characterises a typical working day in Mapei.
This could be the summary of the events on the 2nd and 3rd of March this year at the Hotel Melià in Milan, where a meeting was held for the Mapei's Italian sales team.
It was a fundamental appointment, and not just to celebrate the seventy-fifth anniversary of the founding of the Mapei Group and make the concept of "team play" even more ingrained and efficient. It was above all an occasion to highlight the rapid transformation of the company and underline the concrete differences that make Mapei a genuinely unique company in the world of producers of chemical products for the building industry.
In a period of general recession, which has registered a negative trend for the Italian building industry in particular in the first six months of the year, the meeting also proved to be an important occasion to define the right path to follow in order to be even more convinced,

ALLING

determined and ready when things pick up again. The meeting kicked off with a message from the Mapei Group's CEO Giorgio Squinzi. Before delivering his message, there was a video narrated with his own words telling the story of the company, with special attention to particularly decisive moments during its growth and on the numerous people who, over the years, have played their part in creating such a great company. "Never stop pedalling", the motto which concluded his heartfelt story through images, was the mantra for the two-day meeting. And his invitation to never give up was the message emblazoned on the white t-shirts which were handed out and happily worn by all those present on the last day of the meeting.

After this evocative introduction, the stage was taken by the key figures responsible for the nerve centres of Mapei's development.

The aim was to highlight the company as it stands today, from Research & Development and Human Resources to Production and Technical Service, without forgetting the all-important Operational Marketing, the company's passion for Sport and its commitment to culture.

Veronica Squinzi, Global Development Direc-

Above. Mapei SpA's sales people gathered on the 2nd and 3rd of march in Milan to attend the annual sales meeting.

Left, below. Giorgio Squinzi and Ernesto Erali awarding Roberto Macconi, an Italian salesman that met all the sales goals set for him.

tor for the Mapei Group, highlighted Mapei's presence in all five continents and how, thanks to its thorough knowledge and understanding of local markets, the company has the ability to meet specific local requirements wherever the company operates. Mapei's strategy of internationalisation is based on two main objectives: being closer to local needs and the lowest transport costs possible. With the declared objective of being close to buyers and clients, the indisputable strength of Mapei in the five continents is to never disregard the requirements of each country and to use only locally-based managers and qualified personnel.

Marco Squinzi, Research & Development Director for the Mapei Group, explained how Mapei products are based on an imposing amount of scientific research work involving more than 730 dedicated employees. Getting to the heart of the subjects discussed during the meeting, Marco Squinzi explained the fundamental importance of Product Managers and the entire sales team in identifying and developing new product/systems ranges. In fact, with the contribution of those actually operating on the territory and who are in constant, close contact with the clients, it is possible to guide the Research Centres to formulate new products or improve existing ones.

After highlighting the guidelines for the new publicity campaign, the aim of the talk presented by Adriana Spazzoli, Operational Marketing & Communication Director for the Mapei Group, was to emphasise all the resources employed in various areas of communication: from sponsorships to packaging, from communication at sales points to technical documentation, without forgetting the on line tools and the importance of the role covered by *Realtà Mapei* magazine and the various local editions issued by the Group's overseas subsidiaries.

After completing this important institutional part of the meeting, which also included talks by Roberto Boselli, Production Operations Director for the Mapei Group, Carlo Pecchi, Chief Financial Officer the Mapei Group and Francesco Stronati, Director of the Mapei Group's Technical Services, it was the turn of the company's Product Managers, one for each of the 15 lines of products for which Mapei stands out in the world of building.

Conceived in the form of a talk-show, and conducted with sparkling vitality by Ernesto Erali, Mapei SpA Sales Manager for Italy, the Product Managers talked about their individual areas of expertise to discuss numerous

In these pictures.
On the 2nd of March Mapei SpA's sales people joined the Company Board's members and the heads of several department to enjoy a special dinner.

technical issues, and opened up a close dialogue with the participants at the meeting to speak about sales and advertising strategies, and how to make the exchange of ideas and information between the various departments in the company even more efficient and more of a driving force.

And numerous assurances emerged from the two days of intense work. Firstly, that Mapei has been strengthening its role as a reference point for the building world and offers itself as a unique partner for designers and constructors. From foundations to rooftops you will find Mapei, and its worldwide growth is continuing.

Mapei's force and authority are not limited to the products and well-known technology; the Company considers the people as the real central driving force and a beacon for the company.

Because this is what makes the difference in Mapei: the value of each single person, each one different and each one with an ability to share something with the Group. People at the centre, therefore, confirmed by a recent survey which revealed how, in a market characterised by an infinite variety of products that, to the eyes of the average consumer, seem to be much of a muchness, 80% of all sales are made thanks to the information and persuasiveness of the salesman. And so those companies that employ and are able to hold on to the best salesmen will have more chance of achieving positive sales figures.

To think that these two days of meetings were mainly a way of creating a closer group and a better understanding between the participants would be absolutely reductive. All the salesmen expected the time spent at the meeting to be exploited in as profitable and useful a way as possible, to get the latest information and training and to offer and exchange ideas and information directly from the field. And this is what actually happened; two intense days together, proud to belong to a world-leading company in their sector, but also happy in the knowledge to have taken home new tools to help carry out everyday work more professionally and more profitably.

REACHING NEW HEIGHTS

The 2012 Mapei Americas sales meeting was held last January in Las Vegas

Mapei's internationalization process began in late 1970s with the opening of the first manufacturing plant in Laval (near Montreal, Canada) which provided a bridgehead for successfully breaking into the North American market.

Thanks to relevant investments in Research & Development, the company never stopped growing. Even if it is from this area that the 2008 economic crisis first spread out, the Group was nevertheless able to strengthen its presence in the American continent.

Mapei Americas sales meeting, which was held on the 27th, 28th and 29th of January, was a time to reflect on the current situation and on the new important goals to be achieved.

As the economy began to very slowly turn upward, Luigi Di Geso, President of Mapei Corporation (the US subsidiary of the Group) and responsible for the Mapei Group's operations in the Americas, determined to call together sales representatives from the United States, Canada, Mexico and all of Latin America, for a spirited and inspiring meeting that would set everyone's sights on the next level of achievement.

The event, carried out by the Mapei Americas Leadership Team and the Marketing Department, included three days of intensive presentations, breakout sessions, awards and teambuilding in the Palms Resort in Las Vegas (USA).

The event was attended by Giorgio Squinzi, CEO of the Mapei Group, Adriana Spazzoli, the Group's Operational Marketing and Communication Director, Marco Squinzi, the Group's Research & Development Director, and Veronica Squinzi, the Group's Global Development Director: a sign of the American market's important role for the Group and the attention paid to the setting of new sales strategies.

On the opening night, Giorgio Squinzi spoke about the great work the sales teams had already accomplished and the challenges that await them in the coming years. He closed with assurances that he believed they could "scale the heights".

Di Geso explained in details the sales strategies and emphasized the anticipated growth of Mapei in terms of geographic expansion and product expansion. The company is entering Latin America through the establishment of trade representatives in all major markets within Central America, South America and the Caribbean. All the 15 Mapei product lines will be introduced in the Americas next to the existing ones, most notably the concrete restoration systems line.

On the last day of the meeting, sales reps heard presentations from Steven Day concerning marketing; Kevin Smith, for the concrete restoration systems; Jeff Johnson for the floor covering and turf

Photo 1. Giorgio Squinzi, CEO of the Mapei Group, and several members of the Board of the Group and of Mapei Corp., welcomes everyone to the 2012 Mapei Americas sales meeting.

Photo 2. The Mapei Americas sales meeting included three days of intensive presentations, breakout sessions, awards and teambuilding.

Photo 3. During the dinner on Saturday, 28th January, "Best References in the Business" reference project awards were handed over to Mapei Americas sales representatives.

Photo 4. Nick Di Tempora, Honorary President of Mapei in North America, was honored with a special recognition award for his service to Mapei.

Photo 5. At the closing dinner, Marco and Veronica Squinzi were presented with a 75th anniversary cake, complete with fireworks.

2

3

line; Vickie Brint and Lysanne Bruneau for the US and Canada Human Resources, respectively; Robert Ash, Jr for sales in Mexico and Maurizio Paglialonga for sales in Latin America; Michael Flam as for the legal aspects that affect the sales force.

Sales representatives had the opportunity to "Speak to the Leaders" as their questions were answered by a panel composed of Di Geso and all the Leadership Team members. This session was followed by a highly memorable motivational speech by Alison Levine, Team Captain of the First American Women's Everest Expedition. She gave all those present an amazing perspective on reaching new heights thanks to real motivation.

Such an exciting presentation could only be topped by recognizing one of Mapei's own who has reached the highest pinnacles in business and entrepreneurship. A very special award was given to Nick Di Tempora for his contributions to the growth of Mapei in the Americas since he first partnered with Giorgio Squinzi in 1983 to bring the United States into the ever-growing global family of Mapei Group.

Just like in Italy, Mapei Americas sales meeting showed evidence of its strength and willingness to grow.

As Giorgio Squinzi once argued, it is in these areas that the economic crisis was born and, at the same time, it is here that it can be first overcome.

The whole of Mapei is firmly confident that recovery is not far away, since some indicators are already, albeit lightly, positive. This belief was strengthened by the Mapei Americas sales meeting, an important event devoted to the local salespeople: the Group can rely on them to continue to grow in this important area.

MAPEI AMERICAS' SHORT-TERM AND LONG-TERM STRATEGIES

In the short term, Mapei Americas is facing stiff pricing challenges from some of its competition. "We are aware that price-cutting is the last resort when competitors do not have the resources to develop continuous innovation," Luigi Di Geso said. "We follow the lead of our R&D centers for excellence and continue to differentiate our products based on performance and environmental sustainability."

"We recognize that, in the short term, we may have to compete based on price in certain situations; but we will continue to provide the best and most sustainable solutions for our customers' needs," Di Geso continued: "We have wisely developed a full line of products in each category that allows us to sell excellent products in every performance condition at a fair price. For instance, Mapei has validated the performance of all its ceramic tile and stone adhesives and grouts according to the ISO 13007 standards to provide the proof behind this claim."

Mapei in the Americas continues to pursue two major objectives that will provide organic growth for the company. "We are following Mapei Group's vision by expanding more into the concrete restoration line, particularly in the area of structural strengthening with Fiber-Reinforced Polymers (FRP)," Di Geso said. "We have significantly enlarged our Concrete Restoration Systems (CRS) sales force and distribution channel, and we have added R&D and Technical Service manpower in the Americas."

"Our second objective – to expand geographically into Latin America – has also met with remarkable success. Over this past year, we have added a number of distribution partners in the Caribbean, Central and South America. We are beginning to see a marked increase in revenues from this part of the Americas."

In the US and in Canada Mapei is on schedule to meet the rising production demands of a recovering economy with plans to steadily increase its operations footprint from roughly 102,200 m^2 to almost 139,300 million m^2 over the next three to five years.

In addition to moving to a newer and larger facility in Brampton, (Canada), Mapei is expanding its West Chicago (USA) plant. This expansion will be followed by the construction of a larger manufacturing facility on recently acquired property in New Jersey (USA). In Dalton (USA) Mapei has purchased a new location in addition its existing APAC production plant dedicated to adhesives for resilient and textile materials. Research and Development is already at work, and a production plant is on the drawing board for this facility.

Di Geso concludes: "We look forward to increasing our sales while maintaining profitability. Whatever challenges we face in the next few years, we will overcome them with the support of our employees and our business partners. We will use the strength of our "Mapei family" to continue our leadership role as customers' supplier of choice, constantly building our reputation as "technology you can build on."

SLOWLY-GROWING ECONOMY HERALDS THE START OF THE RECOVERY

The trends of US building market and Mapei's strategies to deal with them

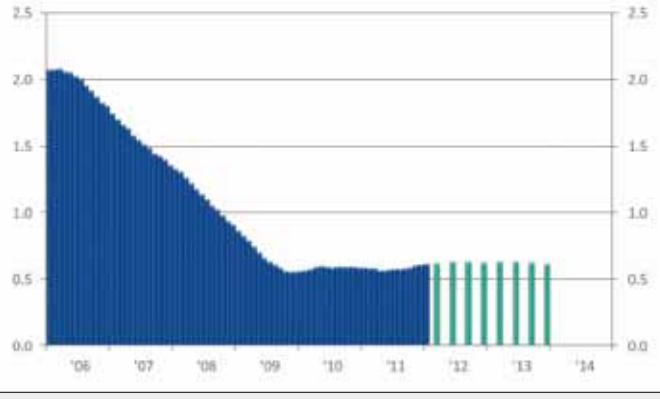
A little growth, a little expansion, and a little innovation – it all adds up. Data from various market analysts and the U.S. Departments of Labor and Commerce show small incremental gains in employment, real GDP, consumer and capital spending, as well as housing starts.

U.S. Economic Forecast (updated on April 11, 2012)

Kathy Bostjancic, Director of Macroeconomic Analysis at The Conference Board (a global, independent business membership and research association based in the USA and in several countries) commented on May 4, 2012, "for the U.S., we expect employment and economic activity to reaccelerate moderately in the second half of the year, with real growth picking up to around 2.5%.

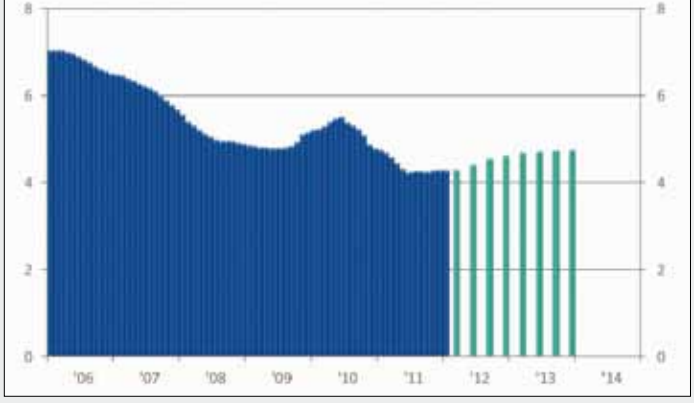
Underlying economic fundamentals are improving, albeit slowly. Compared to last year, consumer sentiment and spending are stronger this year, and housing is less of a

Housing Starts



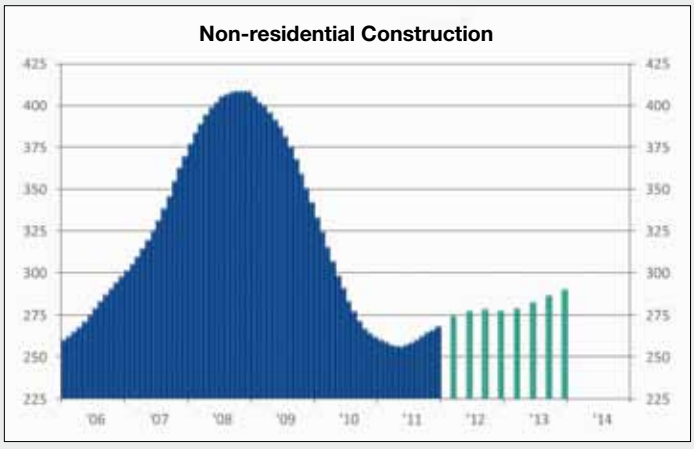
Annual housing starts in the USA totaled 615,000 units in January 2012, the highest level in over two years and 4.5% above the same time last year. Annual housing starts are expected to rise through the first half of 2012 before plateauing in mid-2013. Housing starts are expected to be largely flat for the next six quarters.

Existing Home Sales



Existing home sales in the USA were at 4.3 million units in 2011 and began the 2012 with the strongest December-to-January rise since 2002. While this is a positive sign for this market, annual sales are 9.8% below the year-ago level. Sales for the past three months finished 3.2% above the same time last year, indicating the recovery in this market will continue in the near term. The current rising trend in annual existing home sales is expected to persist through 2013.

Building materials and supplies stores retail sales for 2011 totaled 241.9 billion US dollars, the highest level in over two years and 3.5% above the year-ago level. Annual retail sales are expected to grow through 2013, but the rate of growth will begin to diminish in the second half of 2012. Look for retail sales to finish 2012 5.7% above 2011 and to grow an additional 3.7% in 2013.



Non-residential construction finished 2011 on a positive note, totaling 268.0 billion US dollars, 2.4% above 2010. Fourth quarter 2011 construction is 8.4% above the same time the previous year, indicating the annual rate of rise is likely to accelerate in the near term. Expect construction to finish 2012 3.6% above 2011.

drag on economic growth. Going forward, wage growth may become more critical than job growth. Sustained moderate job gains and any pickup in wages will put a floor beneath consumer sentiment and spending that could, in turn, fuel moderate employment gains in "core" services (which excludes health and education)."

"This slow movement confirms the analysis we reported last year," said Luigi Di Geso President and CEO of Mapei Corporation and responsible for the Mapei Group's operations in the Americas. "We will not see a sharp V-shaped return to pre-2007 levels of business, but a slow and steady improvement in the economy will lead to a long-term recovery."

The charts in these pages and data from the North American Building Materials Distributors Association and North American Association of Floor Covering Distributors Quarterly Economic Report, February 2012, illustrate the shape of reviving economy.

In 2011, home improvement construction totaled 114.6 billion US dollars, a 2.8% increase from 2010. It is expected to grow into early 2013, but should decline by mid-2013 and will slip into recession. Look for home improvement construction in 2012 to be 6.2% above the 2011 level; but in 2013 it will be 2.1% below 2012.

Commercial building construction finished 2011 totaling 40.0 billion US dollars, 6.4% above 2010. It is forecast to rise continuously through 2013. Commercial building construction is expected to grow 5.4% from the current level in 2013 and an additional 7.5% in 2013. Office space asking rents increased while vacancy rates fell to 17.3%, both signs of increasing demand for office space in 2012.

Source: NMBDA-NAFCD Quarterly Economic Report, February 2012

POSITIVE SIGNS IN 2012 FOR THE AMERICAN FLOORING INDUSTRY

A survey carried out in the US flooring sector has shown the highs and lows of being a retailer searching for quality

Edition 12/February 2012 of the US magazine *nft*, dedicated to the latest trends in the flooring industry, published the results of a survey carried out by the Market Research Division of the editorial group BNP Media. The survey was held in November 2011, and involved 5,301 subscribers to *nft* whose main business is selling and supplying flooring.

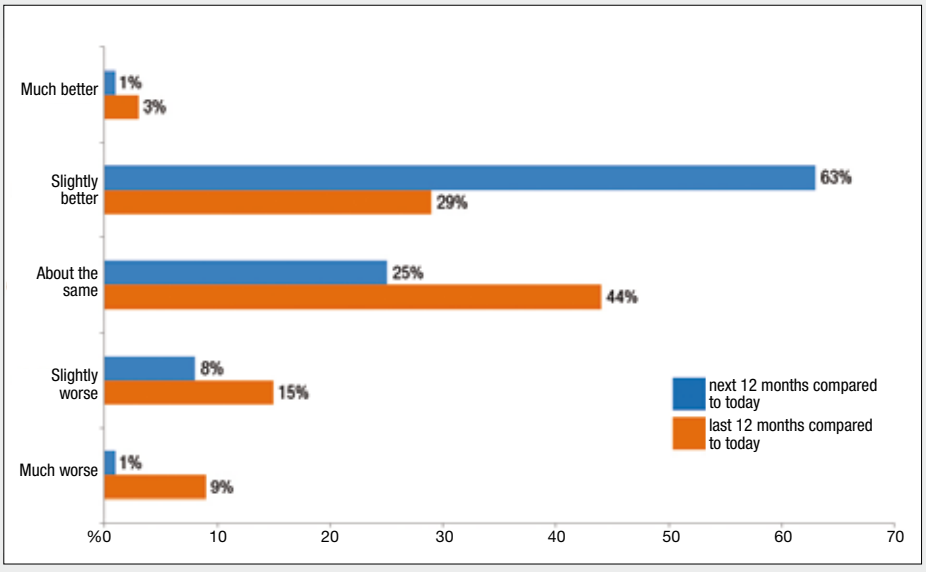
The results, which are summarised in this article, refer to:

- the top selling product types in 2011
- the expected product growth for 2012
- the current market situation compared with last year, and the outlook for the future
- the product attributes of priority when selecting/purchasing a specific manufacturer/brand of floor covering
- the current challenges facing retailers of flooring and contractors.

It comes as no surprise that 2011 has been a difficult year for this sector. A very slow economy, coupled with an increase in competition and the fickleness of consumers, have led to sales becoming increasingly unstable. But costs (price increases, discounts, increase in the cost of raw materials, etc.) were cited as the most important factor the retailers/contractors have to deal with today by those interviewed for the survey. This trend will certainly not change in the foreseeable future, which would explain why there were so many who answered "much worse", three times more compared with those who replied "much better", when asked to compare the current situation of the flooring industry with that of the previous 12 months.

Having said that, we certainly mustn't give up hope: 64% of those questioned said that they believe the situation will get "slightly better" or "much better" in the next 12 months compared with now (see graph 1), while 72% predict that their gross annual sales will grow "slightly" or "significantly" compared with the last year.

The trend towards recovery, however, does not mean we can rest on our laurels: those companies which want to gain a competitive edge on the market must continuously look ahead in terms of technology, and must know when it is the right moment to seize an opportunity. It is no



Graph 1. The graph shows the US flooring retailers/contractors assessment of the flooring industry business conditions in the previous 12 months and their expectations for the next 12 months. The data refer to a survey which went out in November 2011.

Graph 2. The graph shows the percentages of average in the US flooring industry.

» AFTER PRICE, THE QUALITY OF A PRODUCT IS THE DETERMINING FACTOR WHEN CHOOSING A SPECIFIC BRAND OF FLOORING

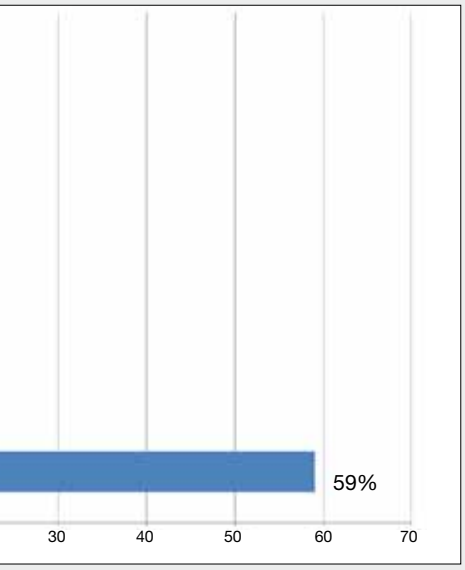
coincidence that marketing and advertising (53%), IT (40%) and training and education (36%) are the three key areas in which those who took part in the survey intend increasing investment.

As far as the different segments of the flooring sector is concerned, 59% of sales was for residential replacement works, while sales for new buildings represented just 10% (for residential projects) and 12% (for commercial projects), as illustrated in graph 2.

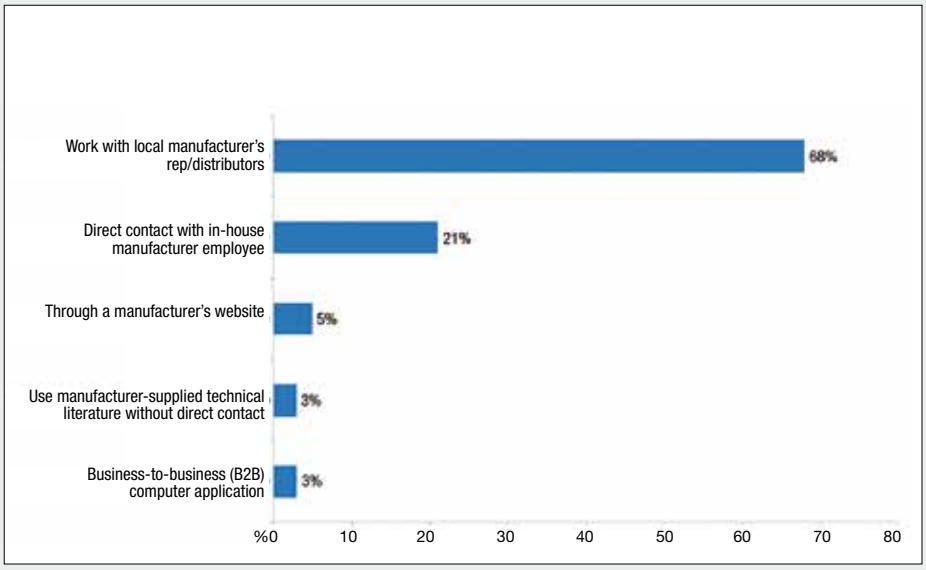
"Product quality" was mentioned as the most important factor that influences retailers when deciding which particular brand of flooring to promote or sell with support from the manufacturer and reliability in second and third place respectively. When asked to classify the importance of various relevant characteristics when selecting and purchasing a specific brand of flooring, "scheduling and on-time delivery" (64%) and "responsiveness in handling claims and services" (63%) were decisive. When asked about their preference for interacting with manufacturers when purchasing flooring, retailers answered "working with a manufacturer's local rep/distributor" in 68% of cases, while the percentage who prefer direct contact with an employee of the manufacturer rather than visiting their website was four times higher (see graph 3).

76% of those taking part in the survey acknowledged a tendency to prefer "flooring products and materials which respect the environment", but only 26% call themselves "quite familiar" or "very familiar" with the eco-sustainable classification system LEED (Leadership in Energy and Environmental Design) of the US Green Building Council. Nevertheless, 65% of those asked consider an EPDS (Environmental Product Declarations for products used in the USA) "somewhat", "quite" or "very" important when purchasing a certain type of flooring.

The data and information contained in this article have been taken from edition 12/February 2012 of the magazine nft, whom we kindly thank.



sales in 2012 for various segments generating business



Graph 3. The graph shows how US retailers prefer to interact with flooring manufacturers.

Source: BNP Media Market Research Division

SURFACES

24th-26th January - Mandalay Bay Convention Center - Las Vegas

Surfaces, the famous US exhibition devoted to wall and floor coverings, attracted almost 28,000 visitors when it was held this year in January. Mapei took advantage of the occasion to commemorate, in conjunction with its US subsidiary Mapei Corporation, the Group's 75th anniversary, displaying special panels visible from outside the stand.

Inside the stand, visitors' attention was captured by brand-new products like ECO PRIM GRIP, a special primer that allows workers to install new ceramic tiles, especially thin ones, over old tile without removing the old tile or scarifying its surface. Products from the ULTRABOND ECO line were presented in their new "refill" packaging, which is easy to use, prevents waste from the use of larger pails, and the disposal of mountains of pails in landfills. As well as practical demonstrations of how to use Mapei products, experts from the Company also attended side events giving talks and demonstrations on topics like the role of the ISO 13007 standard for adhesives and grouts in specifications for installing ceramic tiles. Neil Mac McMurdie, the Director of Mapei Corporation's Research & Development Department, presented the new *Thin-Body Porcelain Tile Reference Guide for Interior Floors* to the general public.

During the annual press conference organised by Mapei, the President of Mapei Corporation and head of the Group subsidiaries in the Americas, Luigi Di Geso, provided an overview of the Group's history, its development plans for the Americas, and all the operations carried out over the previous year; a number of Mapei technicians outlined the ways of using products such as ECO PRIM GRIP, ULTRAFLEX LFT RAPID and KERAPOXY CQ. Journalists took lots of photographs of the winner of a special promotion event connected with Mapei's APAC brand of adhesives, in which an installer won a green and black (the brand's own colours) motorcycle.

Di Geso concluded the event by announcing the "$75K Giveaway" project rewarding American building contractors and distributors who purchase Mapei products in 2012.

Architects from the American Institute of Architecture listened to the talk on specifications related to ISO 13007 standards given by Michael Granatowski, Mapei Corporation's USA National Manager for Architectural and Commercial Projects, at the StonExpo show, which was held in the Mandalay Bay Resort at the same time as Surfaces 2012.

The Marble Institute of America presented an iPad application sponsored by Mapei called "Stones of North America", featuring stones from various quarries in the United States and Canada, as well as Mapei CAD drawings and specifications for installing natural stones.

The next edition of Surfaces will be held from 29th to 31st January 2013.

These photos. The Mapei stand at Surfaces 2012 attracted visitors with its new products, logos for the Company's 75th anniversary, practical demonstrations, and even a motorcycle up for grabs as a prize decorated with the colours of APAC.

WORLD OF CONCRETE

24th-27th January - Las Vegas Convention Center - Las Vegas

This year World of Concrete, the most important US exhibition connected with concrete technology, was attended by over 52,000 people. Mapei Corporation, the Group's USA subsidiary, offered visitors numerous demonstrations of specific products for preparing concrete. Interest focused in particular on Mapei's Fiber Reinforced Polymers (FRP) systems serving structural strengthening purposes. A large audience watched Mapei technicians demonstrate how to apply them, using real-size bridge columns. CARBOPLATE pultruded carbon fiber plate was in the spotlight, applied on this occasion to a thin concrete bar.

Other demonstrations were devoted to waterproofing solutions and cementitious decorative flooring systems involving the use of PLANICRETE UA latex in combination with Mapei grouts for coloured joints available in 36 different colours.

Demonstrations organised by the magazine *Concrete Construction* were given during the "Artistry in Concrete Demonstrations" performed by craftsmen who are expert in using concrete technology. The artist Earl Senchuk created a "living concrete tree", whose trunk and branches were made of concrete with the addition of PLANITOP X fiber-reinforced repair mortar and decorated with real green plants along its branches, able to survive thanks to a special sprinkling system incorporated in the tree frame.

This year's Mapei press conference focused on the Company's 75th anniversary. Luigi Di Geso, the President of Mapei Corporation and head of the Group's subsidiaries in the Americas, provided an overview of the Group's history, its plans for the future, projects to expand in Latin America, and the growth it achieved last year in the Americas; a number of Mapei technicians then gave a description of the line of products for repairing concrete and how to use them, including practical demonstrations focusing on fiber-reinforced materials. Earl Senchuk took the opportunity to present Giorgio Squinzi, the CEO of the Mapei Group, with his concrete tree.

These photos. The Mapei stand at WOC 2012 was devoted to the Company's 75th anniversary and hosted practical demonstrations of how to use Mapei products and a concrete tree designed by the artist Earl Senchuk.

Mapei Corporation's traditional "VIP Hospitality Event" hosted about 300 customers from the United States, Canada, Mexico and Latin America. During WOC show, the Group's US subsidiary also announced it would be donating products for repairing concrete worth a total of 10,000 US dollars for the CIM auction, an American project awarding grants to college students studying management in the concrete industry.

WOC 2013 will once again be held at the Las Vegas Convention Center from 5th to 8th February.

COVERINGS

17th-20th April - Orange County Convention Center - Orlando

From the 17th to the 20th of April, Orlando, (Florida, USA), hosted the 2012 edition of Coverings, the most important American trade fair dedicated to ceramic and stone floor and wall coverings, attracting thousands of distributors, manufacturers, builders, designers, journalists and other professionals from the field. About 900 exhibitors from 45 countries illustrated the latest trends to visitors in the Orange County Convention Center.

The overall atmosphere at the trade fair was enlivened by recent signs indicating that the American real estate sector is picking up, which has already led to a better trend in the ceramics industry since the beginning of the year. Proof of this is the number of visitors registered at the event (22,300) and the displaying surface which was over 30, 200 m^2 (+12% compared with the last edition).

Mapei at Coverings 2012

Mapei was present at Coverings again this year, represented by its US subsidiary Mapei Corporation, with a stand dedicated to a display of solutions for laying ceramics and stone. Under the spotlight were products distributed on the local market by Mapei Corp., such as ECO PRIM GRIP adhesion promoter for preparing substrates, ULTRAFLEX LFT RAPID quick-setting adhesive, KERAPOXY CQ cementitious grout, and MAPESIL silicone sealant, available in 18 different colours plus clear. Mapei's team of experts held seven demonstrations in the demo area of the Tile Council of North America (TCNA). Mapei also took part at the trade fair as supplier of materials for the Confindustria Ceramica (the Association of Italian ceramic tiles and refractory materials manufacturers) stand. Ceramic tiles from member producers of the Association were laid using Mapei products, in a stand called "Piazza Ceramica" for its similarity to a typical Italian piazza.

Mapei technicians took part in a number of side events organised during Coverings 2012. Brian Pistulka, Mapei Corp's Business Manager of installation systems for ceramic and stone, illustrated the Company's solutions for bonding thin ceramic tiles on internal surfaces to companies operating in this particular field during a tour of the stands organised by the National Tile Contractors Association (NTCA), and to around 30 journalists during the press tour organised by the Tile Council of North America (TCNA). Mapei Corp. has also dedicated a special brochure to this type of application, the *Thin-Body Porcelain Tile Reference Guide for Interior Floors*.

Mapei's collaboration with the Marble Institute of America has led to the development of an iPad app called "Stones of North America", which was promoted during Coverings 2012. The app gives easy access to information on stone from US quarries and guidelines for laying stone material, as well as Autocad drawings and technical specifications featuring Mapei products and systems.

The next edition of Coverings will be held from the 29th of April to the 2nd of May 2013 in Atlanta (USA).

Above. Mapei's stand at Coverings 2012 was also a reminder of the Company's 75th anniversary, and highlighted various innovative solutions for laying ceramic andstone.
Left, middle. Mapei technicians showed visitors how to use the products correctly.
Left, bottom. The Confindustria Ceramica stand looked like a typical Italian piazza. Italian ceramic tiles were laid using Mapei products.
Above, middle. Mapei and the Marble Institute of America have developed an iPad app called "Stones of North America".

INSTALLATION & DESIGN SHOWCASE

Famous designers, professional installers and quality products for luxury environments

The third edition of the Installation & Design Showcase was also held during Coverings 2012, a special event to show the public the importance of the synergy between designers and professional installers when creating environments with ceramic or natural stone and floor and wall coverings. The aim was to unite all the segments of the ceramics industry and show visitors to the exhibition how these types of material are able to transform the environments we inhabit on a daily basis. The stars of the Installation & Design Showcase 2012 were three US designers (Joan DesCombes, Grant Gribble and Foreman Rogers) and some US installation companies specially selected according to strict parameters dictated by the National Tile Contractors Association, co-sponsors of the event. The common theme for all three environments was their luxurious style: the patio of a private residence, a deluxe master bath, and a hotel room with floors and walls decorated in ceramic tiles. In two of these environments, the products used included laying systems supplied by Mapei Corporation, the US subsidiary of Mapei Group. In order to create the environments, the areas dedicated to each project inside the Orange County Convention Center in Orlando were available and open to the public from the eve of the opening of Coverings 2012. All work was then completed by the 18th of April so that visitors could follow their progress, and see the results for themselves until the trade fair closed.

Grant Gribble, a designer from Orlando and proprietor of Gribble Interior Group, designed a bathroom inspired by US fashion from the 1960's and 1970's. The bathroom was built by the installation company Collins Tile and Stone from Maryland, using Mapei's ULTRAFLEX 2 to lay the flooring tiles and ULTRAFLEX LFT to bond the ceramic tiles on the walls.

White ADESILEX P10, on the other hand, was used to lay the red and black mosaic tiles on horizontal and vertical surfaces, with joints grouted with black, white and grey KERACOLOR S and KERACOLOR U grouts.

Foreman Rogers, a designer from the tvs-design studio in Atlanta, created a room for a boutique hotel making wide use of ceramic tiles, in this case supplied by Italian companies through Confindustria Ceramica (the Association of Italian ceramic tiles and refractory materials manufacturers).

The David Allen installation company from Raleigh, used ULTRAFLEX 2, ULTRAFLEX RS and ULTRAFLEX LFT to lay the ceramic tiles on the walls and floor, before grouting the joints with white, carbon-black and grey KERACOLOR S and KERACOLOR U.

Joan DesCombes, a designer from Winter Park (USA) specialised in kitchens, designed an external area similar to a patio, a refuge and oasis of peace for those living indoors. The installation company for this area was Cox Tile and Marble from San Antonio.

Above. In the boutique hotel room designed by Foreman Rogers, the ceramic tiles and mosaics were laid on the walls and floors using ULTRAFLEX, ULTRAFLEX 2, ULTRAFLEX RS and ULTRAFLEX LFT. The joints were grouted with KERACOLOR S and KERACOLOR U.

Below. The bathroom, inspired by 1960's and 1970's fashion and designed by Grant Gribble, required the use of ceramic tiles and mosaic laid using ULTRAFLEX 2, ULTRAFLEX LFT, ADESILEX P10, KERACOLOR S and KERACOLOR U.

CONFINDUSTRIA CERAMICA AWARDS FOR DESIGN AND DISTRIBUTION

Presented at Coverings 2012, the Ceramics of Italy Design Competition awards and the North American Distributor award

During the Coverings 2012 trade fair, the traditional **Ceramics of Italy Press Conference** was held on the 18th of April – this year in the original form of a talk-show. Guests at the event included the Italian Consul General in Miami Adolfo Barattolo, the President of Confindustria Ceramica (the Association of Italian ceramic tiles and refractory materials manufacturers) Franco Manfredini, the Chairman of Confindustria Ceramica's Promotional Activities Committee Vittorio Borelli, and the Executive Director of the North American branch of ICE (Italian Trade Commission) Aniello Musella. Moderator of the event was the General Manager of Confindustria Ceramica, Armando Cafiero.

This was the perfect occasion to present the latest figures from the US ceramic tile market. Imports of Italian tiles into the USA hit the 27 million m^2 mark, for a value of 345 million Euros. In the first three months of the year, imports of Italian tiles grew by 15% in m^2 and by 20% in Euro. The number of US companies controlled by Italian groups is 4 (with 6 production facilities and more than 1,200 employees), and have registered an increase of 2% in volume and 4% in revenues.

On the same evening, the winners of the **Ceramics of Italy Design Competition** were also announced. The competition has now reached its 19th edition, and is Confindustria Ceramica's recognition of US architects and designers and their use of Italian ceramic tiles in institutional, residential and commercial/hotel, architectural projects of excellence. In the first category (**institutional** architecture), the winner was the **Museum of Musical Instruments** project in Phoenix, Arizona, designed by the RSP Architects studio and Rich Varda of Minneapolis (USA). The complex, which blends in harmoniously with the surrounding desert landscape, houses around 10,000 musical instruments from all over the world: antique and more recent instruments, some with a royal background and other objects from popular culture, divided into four geographical areas according to their origin. In the museum, there are over 2000 m^2 of flooring in porcelain tiles laid using Mapei ULTRACONTACT adhesive and joints grouted using KERACOLOR. More than 900 m^2 of ceramic tiles were laid on the floors and walls of the restrooms and in the service areas with ULTRACONTACT and ULTRAFLEX LFT adhesives respec-

Above. A moment from the press conference which included various representatives from Confindustria Ceramica, such as Armando Cafiero, Franco Manfredini and Vittorio Borelli, the Italian Consul General Adolfo Barattolo and Aniello Musella, Executive Director of the North American branch of ICE (Italian Trade Commission).
Photo 1. In the Phoenix Museum of Musical Instruments, award winner in the institutional category of the Ceramics of Italy Design Competition 2012, Mapei adhesives and grouts were used to lay numerous ceramic and natural stone floor and wall coverings.
Photo 2. The Bradford West Gwillimbury Library and Cultural Center of Toronto received an honourable mention in the institutional category.

tively, while the joints were grouted with OPTICOLOR. The porcelain tiles on the curved walls in the entrance halls on the first and second floors and in the lifts were also bonded using ULTRAFLEX, and the joints were grouted with OPTICOLOR. In the auditorium where live concerts are held, the natural stone slabs were laid using ULTRAFLEX 3 adhesive.

In the kitchen, the ceramic coverings were laid using ULTRACONTACT and grouted with KERAPOXY IEG, particularly resistant to attack from chemical agents, and to dirt caused by food and oil.

An honourable mention went to the Bogdan Newman Caranci studio from Toronto (Canada), for the **Bradford West Gwillimbury Library and Cultural Center** in Ontario (Canada), made using Mirage tiles. This project also used Mapei products, including ULTRAFLEX 2.

In the **commercial** category, the Leo A. Daly studio from Washington (USA), won the award for the project **Union Square 999**, a large building owned by the CIM group which houses numerous offices on the outskirts of Washington, made using tiles supplied by Lea Ceramiche.

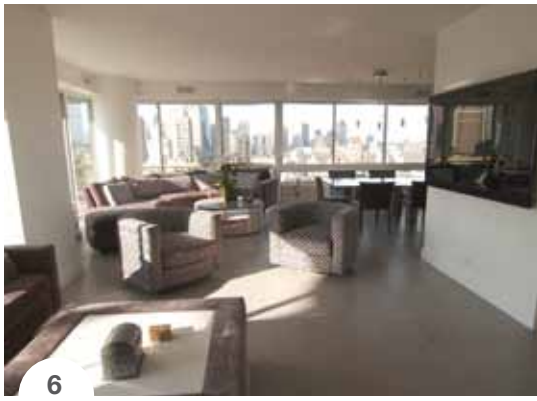
An honourable mention in the same category went to RSP Architects of Minneapolis (USA) for the **Software Headquarters Facility** project in Medina (USA), made using Floor Gres tiles.

In the **residential** category, the Fractal Construction architectural studio from New York was awarded the prize for the **Gramercy Townhouse** project in New York, where tiles produced by Sant'Agostino were employed to cover internal surfaces.

An honourable mention went to the architect Anna Marie Fanelli from Tenafly (USA) for the **Cooper Residence** project in New York, which was finished off with tiles made by Novabell, La Fabbrica and Lea Ceramiche.

Each winner received a cheque for 4,000 US dollars and a 5-day trip to Bologna to visit the 2012 edition of the Cersaie expo.

This year the **North-American Distributor Award**, a prize dedicated annually by Confindustria Ceramica to North American distributors who actively promote Italian ceramic tiles on the local market, went to **Stone Source**, a distributor from New York with 6 showrooms in the United States (in New York, New Jersey, Boston, Washington, Chicago and Los Angeles). For twenty years, Stone Source has been distributing Italian ceramic tiles, with a priority on the quality of the materials used, their aesthetic value and their technical properties. They conduct their business with Italian manufacturers using frank, open commercial protocols: these, along with wide experience in distributing Italian ceramic tiles, were the basis for their selection for the award, accepted by Ron Silano, Vice Chairman of Stone Source. Although Stone Source does not supply products for laying ceramic, they usually recommend the use of Mapei technology and solutions to clients and installers.



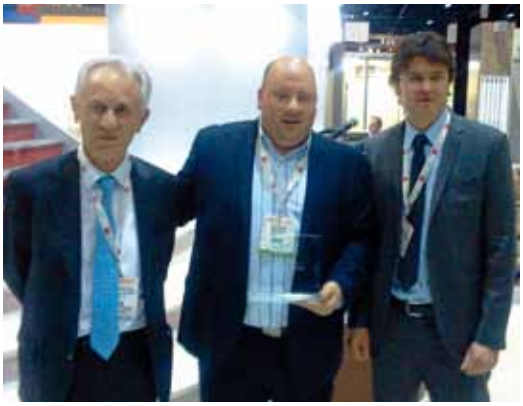


Photo 3. The Union Square 999 project in Washington, winner in the commercial category.
Photo 4. Gramercy Townhouse in New York won the residential category.
Photo 5. Software Headquarters Facility is based in Medina and was awarded an honourable mention in the commercial category.
Photo 6. The Cooper Residence in New York was the honourable mention recipient in the residential category.
On the left. The North American Distributor Award this year went to Ron Silano from Stone Source, a distributor from New York, seen in this photo between Franco Manfredini and Vittorio Borelli.

THE MUSEUM OF MUSICAL INSTRUMENTS IN PHOENIX

Mapei products were used in the new building hosting music in the desert

The city of Phoenix has recently brought music from around the world to its desert environment with the construction of the Museum of Musical Instruments. A two-story composition of simple, fractured stone forms, the 17600 m^2 building harmonizes with the surrounding southwestern terrain.

Encircled by desert plantings and arroyo environments, the building entrance welcomes guests through a landscaped entrance courtyard, which leads inside to a bright atrium.

A flowing "river" form creates the path linking the galleries. Floor, wall, and ceiling finishes create patterns reminiscent of the geological striations of the Arizona landscape, of the rhythms of musical composition, and of the physical features common to musical instruments from around the world. Windows and skylights illuminate the galleries and public spaces by day, and by night they glow with the activity inside the building.

The collection comprises more than ten thousand indigenous and popular instruments representing every country in the world. Many instruments are more than fifty years old and have been used for folk or tribal occasions. Objects in the collection range from the exquisite heirlooms of royal courts to handcrafted pieces passed down through a humble family's generations. State-of-the-art audio and video technology create an immersive, entirely shared museum experience, enabling guests to both see and hear the instruments being played within their cultural contexts.

Exhibition galleries are organized according

Above. The new Phoenix Musical Instrument Museum is a two-story composition of fractured stone forms, which harmonizes with the surrounding desert environment.

Below. The Museum's collection comprises more than ten thousand indigenous and popular instruments representing every country in the world.

1

Photos 1, 2 and 3. On the floors of several areas (galleries, corridors, bathrooms, kitchens) porcelain tiles were laid with ULTRACONTACT adhesive while joints were grouted with KERACOLOR S.

to five major geographical regions. Traveling exhibitions display special collections of instruments from collaborating museums, and permanent-collection galleries show how instruments are made. Programming includes frequent performances in the galleries and demonstrations of instrument making.

High-performance Products for Challenging Applications

The laying company in charge of the installation works was given approximately five months (May to October 2009) to complete the 3000 m^2 floor and wall project.

Five two-man crews laid down over 2000 m^2 of large-size porcelain floor tiles in three different sizes (61x122 cm, 41x61 cm, 20x61 cm) in the corridors, galleries and restaurant area. The biggest challenge with this work was that the floors had to be absolutely level. The installers solved this issue by using a dry-pack mortar bed and using a laser to determine thicknesses in each area. Using Mapei's ULTRACONTACT adhesive helped the team make the final adjustments that kept the entire floor level and smooth. KERACOLOR S grout was used to fill the joints due to its ease of cleaning and maintenance in high-traffic areas. 61x61 cm porcelain tiles were installed with ULTRACONTACT in 10 restrooms. In these locations the crews were challenged to get full tiles to cover the entire expanse of the floors. They broke the joints on columns and around sink walls and installed separate colors and sizes of tile on the walls and floors.

The installation team accomplished the job in all the bathrooms by grouting all the joints with OPTICOLOR stain-free, reaction resin grout, formulated with the chemical and stain resistance that bathrooms demand. OPTICOLOR is nonsag and efflorescence-free, and offers the long-term benefits of being easy to clean and maintain. To install 46x46 cm porcelain tiles over walls and floors of several public restrooms installers broke the joints on columns and around sink walls, and bonded the tiles with ULTRAFLEX LFT adhesive, an ideal choice due to the product's superior nonsag properties and extended open time. Joints were again grouted with OPTICOLOR.

Installers also laid large-size porcelain tiles on the curved walls of the first and second floors of the atrium. They used ULTRAFLEX LFT on the 3-m-high walls because they could stack the 46x46 cm porcelain tiles the full height of the walls and keep on moving. Its non-sag

2

3

Photo 4. ULTRAFLEX LFT adhesive was used to lay 46x46 cm porcelain tiles on walls and columns of several bathrooms. Joints were grouted with OPTICOLOR.
Photos 5 and 6. In the atrium porcelain tiles were laid on the curved walls with ULTRAFLEX LFT, before grouting joints with OPTICOLOR.
Photo 7. In the auditorium natural stone slabs were laid on the walls with ULTRAFLEX 3.
Photo 8. ULTRACONTACT was used to lay quarry tiles on the floors of the kitchens, before grouting with KERAPOXY IEG.
Photo 9. Peg tiles were laid on the walls of the café using ULTRAFLEX LFT. OPTICOLOR was applied with a brush in the very small joints of these tiles.

properties and its performance helped very much. Plus, it offered excellent pot life in the hot weather of a Phoenix summer. All walls and floors in these areas were grouted with OPTICOLOR.

The 299-seat Music Theater spans the two floors of the building. Designed with spacious seating and state-of-the-art acoustics, the auditorium is a premier venue for performances, films, and seminars about musical traditions from around the world. To enhance the acoustics, stone slabs were set at different depths using ULTRAFLEX 3 high-performance adhesive with extended open time.

Large-size porcelain tiles were also installed in the MIM Café. Here, the installers bonded the floor tiles with ULTRACONTACT adhesive and joints were grouted with KERACOLOR S.

8

9

On a half-wall that separates the dining and serving areas and on the full-height walls of the cafe, they set a small, thin, mesh-mounted "fingerlike" mesh-mounted peg tile, using ULTRAFLEX LFT and a half-inch notched trowel. The installers used a paint brush to apply OPTICOLOR in the very small joints of these tiles. In the kitchen of the café, installers laid the floor tiles with ULTRACONTACT and grouted the joints with KERAPOXY IEG to resist food, grease and other chemical spills.
Formulated with high chemical, and stain resistance, KERAPOXY IEG is ideal for commercial food-preparation areas.

This article has been taken from *Mapei Americas* 14, the in-house magazine published by Mapei Corp. (USA), whom we would like to thank.

TECHNICAL DATA

Museum of Musical Instruments, Phoenix (USA)
Period of Construction: 2008-2010

Period of the Mapei Intervention: 2009
Client: City of Phoenix
Work: supplying products for installing porcelain tiles on floors and walls in several areas (corridors, galleries, bathrooms, kitchens, atrium, auditorium)
Project: Richard Varda, RSP Architects, Tempe (USA)
Contractor: Ryan Companies
Laid Materials: ceramic tiles by Lea, Ceramiche Ceaser,
Laying Companies: Pennacchio Tile, Petty's Tile and Sun Valley Masonry
Works Direction: Robert Vega
Coordinamento Mapei: Jennifer Vangen, Mapei Corp. (USA)

MAPEI PRODUCTS
Laying ceramic tiles and natural stones: Keracolor S, Kerapoxy IEG, Opticolor, Ultracontact, Ultraflex LFT, Ultraflex 3. N.B These products are distributed and manufactured on the US market by Mapei Corp. (USA).
For further information see the website www.mapei.us

MAPEI IN GERMANY

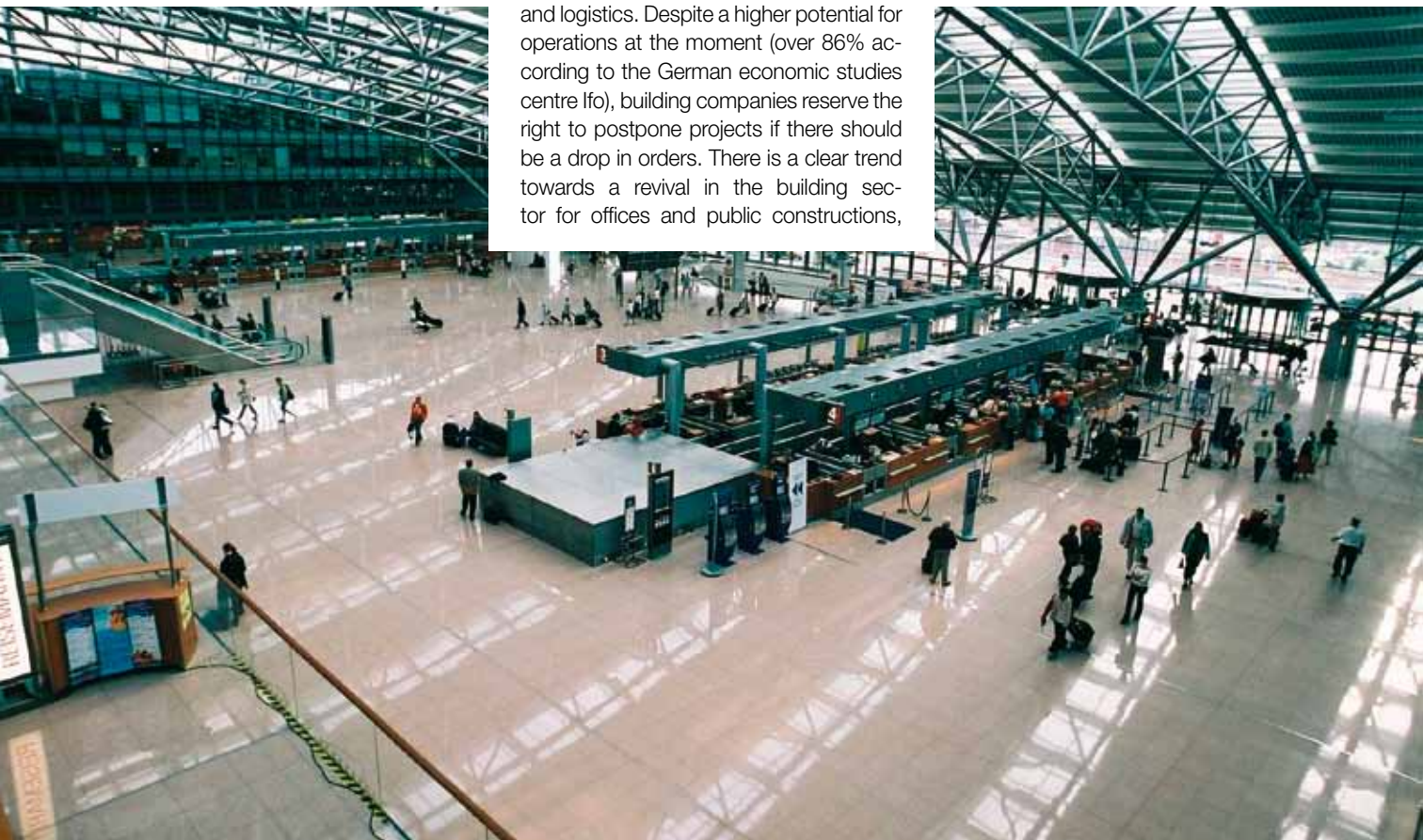
A trio of success stories

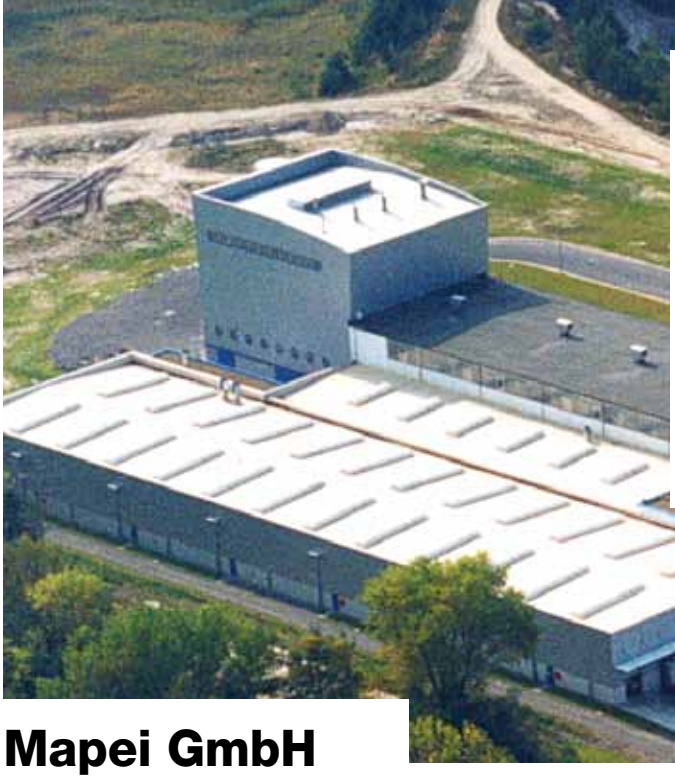
Germany is an extremely important market for the Mapei Group from a global viewpoint. Thanks to three subsidiaries (Mapei GmbH, Sopro Bauchemie GmbH and Rasco Bitumentechnik GmbH), the Company achieved an overall turnover of over 200 million Euros in Germany last year, making it one of the leading manufacturers of chemicals for the local building industry. The prospects for the future are encouraging. Despite the financial downturn and crisis with the euro, the German economy is still solid. The building market, in particular, mainly benefits from a tendency among savers to make investments guaranteeing a certain degree of security, such as real estate. For months now there has been a double-figure increase in the number of building licences issued, while 180,000 buildings were constructed in 2011 corresponding to an increase of 6.5% compared to 2010.

Good Prospects for the German Building Market

In the wake of a crisis in the German housing sector that has lasted for a number of years, a notable recovery is now underway, due to a backlog in orders. The cost of property and price of rents have risen sharply in the most densely populated areas. As regards increasingly high expectations in terms of the energy efficiency of buildings, many investors are now wondering whether it might not be better to build right from scratch rather than undertake expensive modernisation operations. This tendency is destined to spread, partly because lots of residential buildings in Germany are now "dated" and partly due to the 2009 EnEV regulation on energy-saving in buildings.

The situation is different in the non-residential constructions sector. The lower level of growth forecast will not affect the largest subsectors of the building market, i.e. constructions for industry, commerce and logistics. Despite a higher potential for operations at the moment (over 86% according to the German economic studies centre Ifo), building companies reserve the right to postpone projects if there should be a drop in orders. There is a clear trend towards a revival in the building sector for offices and public constructions, where the number of licences has risen considerably. The underground building industry will continue to be dominated by local public institutions. Commercial-type underground projects have also increased in number recently. At least 38% of building work is in the commercial sector, while 68% is commissioned by the public sector. In conclusion, we can safely say that the prospects for the building market in Germany are good, even within the worsening European and worldwide economic context. There has also been some growth in the German ceramics industry. After a negative trend for a number of years, stable growth has been recorded since 2010, settling at +3.5% in 2010 and +3.2% in 2011. Confindustria Ceramica (the Association of Italian Ceramic Tiles and Refractory Materials Manufacturers) estimates for Germany a growth of over 3% in 2012, in line with previous years.





Mapei GmbH

Mapei GmbH, the Group's German subsidiary with offices in Erlenbach, Bottrop and Weferlingen can boast over 20 years of business success. Thanks to four business segments (products for installing ceramics, natural stones and building products; products for installing resilient, textile and wooden floors; admixtures for concrete and grinding aids; products for waterproofing roofs), the company invests in various operating fields, while simultaneously developing new production lines.
Over the last seven years the number of people working with Mapei GmbH has risen by 40% and is now over 180.
The headquarters of this subsidiary are based in Erlenbach, close to the Rhein-Main district in the central-western part of Germany. There is a modern Mapei training centre close by in Kleinwallstadt, where installers can improve their skills by following both theoretical and practical instructional sessions. Technicians from the Mapei technical service department are at hand to answer questions about installation techniques, compiling specifications, and selecting the right materials. The over twenty members of staff at the office in Bottrop provide advice to over 1000 people-a-year. Technical support is not just provided over the phone, but also out on building sites. Last year Mapei technicians visited over 500 building sites and attended 300 training events. Most significantly, Mapei GmbH devotes special attention to helping and advising architects.
The main warehouses of Mapei GmbH, as well as a manufacturing plant, a quality control laboratory, offices and facilities for technicians, are located in Weferlingen, in north-west Germany, covering an overall area of 8000 m². The plant's current manufacturing output is 300,000 tons-a-year, but new systems are currently being designed. Thanks to substantial investments in new technology and production in general, there will be a 30% increase in production output. Moreover, extending the storage areas and offices within the plant will further enhance Mapei GmbH's services and efficiency.

Innovative and Eco-sustainable Products

The solidity of the Mapei brand in Germany is primarily based on eco-sustainable, innovative products combined into systems, backed up by an efficient technical assistance service and elaborate training programme. Architects and designers are now looking for certified products as a fundamental requisite for constructing eco-sustainable buildings. Over 150 Mapei products conform to LEED standards and lots have already obtained EMICODE EC1 Plus Certification issued by GEV, the German Association responsible for controlling VOC emissions from construction products. Lots of Mapei products have the Der Blaue Engel label, which has been setting the standard for eco-sustainable products both in Germany and internationally since 1978. Thanks to the excellence of its products, Mapei GmbH has helped construct lots of prestigious and groundbreaking buildings in Germany, perfectly exemplified, in accordance with the principles for eco-sustainable building, by the tower of the Deutsche Bank in Frankfurt am Main. Mapei products have, most notably, been used for installing 5000 m² of natural stone in this building.

Top left. The Mapei GmbH manufacturing plant in Weferlingen (Germany).
Top right. The headquarters of Mapei GmbH in Erlenbach (Germany).
Above. Tower 185 in Frankfurt am Main. This 200-metre-tall skyscraper is one of the tallest buildings in Germany. The preparation of the substrates and installation of natural stone floors on the inside were carried out using PRIMER G, MAPESTONE 1 and ULTRACOLOR PLUS.
Left. Hamburg Airport. The floors of the check-in area and terrace of Terminal 1 are made of slabs of natural stone. The preparation of the substrates and installation work were carried out using PRIMER G and MAPESTONE 1.

Left and below. The Sopro manufacturing plant and headquarters in Wiesbaden, Germany.

Sopro Bauchemie GmbH

For over 10 years Sopro Bauchemie GmbH has been part of the Mapei Group. Sopro is one of the leading companies in Germany and Europe in the manufacture of chemicals for the building industry. The company combines lengthy experience working with chemicals for building, construction technology and a business strategy focusing on the future as regards both its products and brand. Sopro is actually synonymous with innovative systems for installing ceramics and natural stone, building materials in general, and solutions for inner-city architecture and green spaces. The company was founded in Wiesbaden in Central Germany as part of the Dyckerhoff cement manufacturer. Here, before the Second World War, the first cementitious chemical materials for building were created in the "special products" department. In Wiesbaden there are now the Sopro's manufacturing plant and Research & Development laboratories, as well as executive offices. Dyckerhoff Sopro GmbH was founded in 1985 and has developed a wide range of adhesives for ceramics and natural stones, mortars for grouting, smoothing and levelling compounds, and other chemical products for building.

Today Sopro has a particularly good reputation as a supplier of products for constructing swimming pools. Over the last few years the company has continued to broaden its range of offers. As well as a good selection of building products (bituminous materials, products for making screeds and preparing substrates, admixtures for concrete and accessories for cleaning surfaces), it has also extended its range of products for inner-city architecture and green spaces (grouts, drainage systems, etc.). Once again its great capacity to innovate and the reliable support its' technical team provides for architects, designers and installers, as well as its high-quality high-performance products, mean that Sopro has plenty to offer both professionals working in the industry and private customers. Moreover, the company's success is also due to the presence of three different logistics centres serving distributors of ceramics and materials for building.

The issue of eco-sustainable production and environmentally-friendly products is closely tied to Sopro's corporate philosophy. Sopro is an active member of the German Sustainable Building Council (DGNB) and an active proponent of the "Healthier Living with Ceramics" project launched by the Federation of European Tile Fixers' Associations (EUF). By signing the "Charter of 100 Businesses Working to Safeguard the Climate", a project organised by the German Federal State of Hessen, Sopro Bauchemie has pledged to take concrete action to promote and exploit its energy-saving potential and renewable energy sources. Thanks to its training school "Sopro ProfiAkademie", the company can provide its business partners with professional know-how and expertise specifically geared to the needs of different groups. Last year Sopro Bauchemie GmbH had a turnover of over 100 million Euros, thereby reinforcing its status among the leading manufacturers of chemicals for building in Germany. The Sopro Group also has six subsidiaries in Poland, the Czech Republic, Austria, Switzerland, Hungary and the Netherlands.

Left. Giorgio Squinzi, CEO of the Mapei Group, and Andreas Wilbrand, Sales and Marketing Manager of Sopro Bauchemie GmbH, during the event organised by the German subsidiary to celebrate 10 years in business.

Rasco Bitumentechnik GmbH

The Mapei Group's third subsidiary in Germany is Rasco Bitumentechnik GmbH, whose headquarters are based in Augustdorf in north-west Germany. Rasco is involved in developing, manufacturing and selling bituminous products (membranes, coatings, latexes) of the highest quality that are extremely popular with the market. Rasco provides installers with solvent-free systems, including products guaranteeing long-lasting sealing in line with the regulations currently in force, such as DIN 18195.
In 1993 Rasco Bitumentechnik began developing, manufacturing and distributing its own brand of bituminous materials. The company grew rapidly, so just four years after it was first established it had to extend its production areas. Rasco Bitumentechnik's growth, focusing on the future and definite goals, is still continuing successfully. The company began by manufacturing anionic bituminous emulsions (to be refined), but then moved on to develop and manufacture bituminous coatings and cold self-adhesive strips. Nowadays, a number of different waterproofing systems are manufactured in an area covering approximately 25,000 m² inside two production areas and warehouses. The products are tested in accordance with the appropriate EN and DIN standards. Most significantly, all products are tested in accordance with the DIN 18195 standard.

Top and bottom. The Rasco Bitumentechnik GmbH plant in Augustdorf, Germany.

DOMOTEX 2012

Innovation and eco-sustainability

The 2012 edition of Domotex officially closed on the 17th of January in Hannover, with a positive outcome which satisfied both visitors and exhibitors alike. It's the figures that do the talking: the most important international trade fair for floor coverings (in particular textile, resilient and wooden floors) was visited by more than 45,000 trade operators, while 1371 exhibitors were present to exhibit the latest trends in the sector. An important point was the increase in the number of visitors, with a particularly high influx from Eastern Europe, North America and the Far East.

"During the four days of the trade fair, the sector has given a clear sign of its production capacity and ability to innovate", declared Andreas Gruchow, a member of the managing board of the Hannover Exhibition Centre, highlighting how innovation was the strong point of the exhibition; not only for its technical characteristics, but also for the aesthetic impact of the coverings presented.

And so Domotex reinforced its image as a stage for interior design and lifestyle: at the centre of attention this year were the new trends in flooring and new design developments for the next season. There were numerous highly creative proposals in the textile sector, which offered bright patterns for surfaces, and new formats for parquet. The most modern trends were also reflected in carpeted surfaces, highlighting once again the enormous variety of colours, materials and formats available to clients.

Domotex is also present in other areas of the world going through a period of high economic growth: from the 27th to the 29th of March Domotex Asia/Chinafloor was held in Shanghai (see the dedicated article in this issue), while Domotex Russia will be debuting from the 26th to the 29th of September.

Mapei at Domotex 2012

Mapei was present at Domotex once again this year, in a position of strength as international leader in the adhesives and complementary products sector for the building industry .The Company's 75-year experience guarantees safe, reliable, durable products and systems, which allow work to be carried out quickly. For each type of application, Mapei offers the added value of a solution based on a system

for installing textile, resilient and wooden floors: innovative, certified systems with low VOC emissions level.
This year at Domotex visitors of the Mapei's stand could take part in the game in the "Pull-out and Win with Mapei" prize draw. Every day, after the demonstrations about Mapei products, they could win a complete skiing outfit with original Davos wooden skis, a ski-hat and special goggles.

Eco-Sustainable Products

Environmental responsibility is now a priority in the building industry, and Mapei considers itself a standard-bearer for this concept. The Company's commitment to the environment is best demonstrated through Research & Development programmes into the development of eco-sustainable products, a range launched in the 1990s on the North-American market in compliance with the US certification institute CRI (Carpet and Rug Institute) and certified by the German certification institute GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), two bodies which control the emissions of flooring products. Since October 2005, all Mapei's eco products have EMICODE EC1 and EC1 R certification (very low emission level of volatile organic compounds VOC) certification, and since June 2010 EMICODE EC1 Plus and EMICODE EC1 R Plus certification. Certain Mapei products have also been certified by Der Blaue Engel, a German ecology label which evaluates the emission level of VOC and content of cancerogeneous, teratogeneous or mutageneous substances, which must be absent in the product.

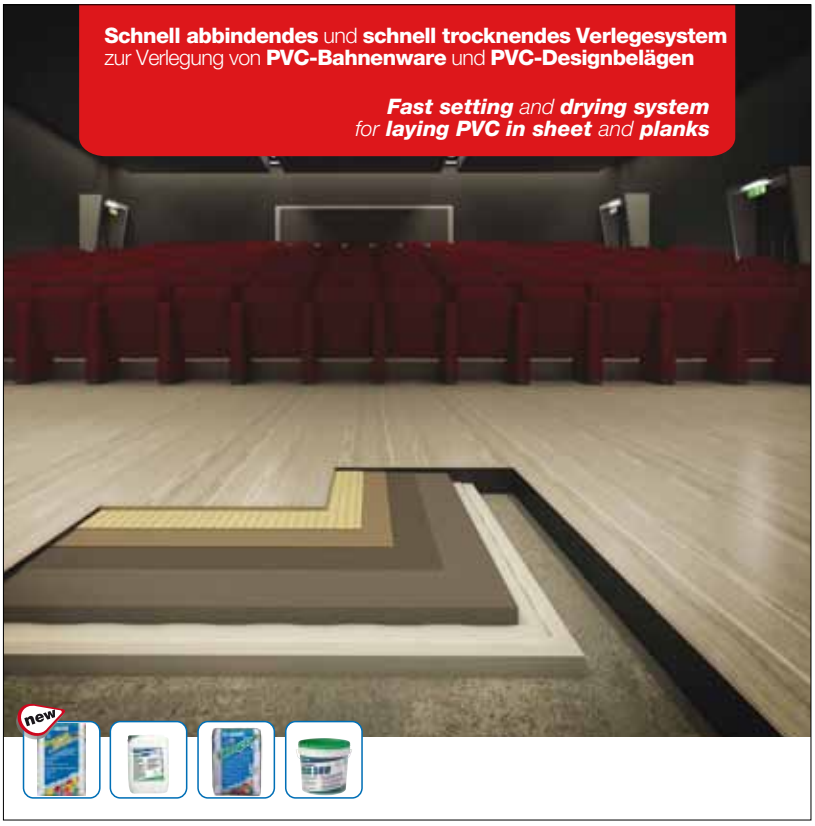
As the construction sector increases its understanding of "green" buildings, Mapei has developed and continues developing the widest range of products which respect the main regulations for the certification of buildings, such as LEED (Leadership in Energy and Environmental Design). More than 150 Mapei products, identifiable with the "Green Innovation" logo, currently meet the LEED requirements.

GREEN INNOVATION



Products for Laying Resilient Floor and Wall Coverings

Choosing the most suitable product for substrates, screeds and levelling compounds is fundamental to install floors correctly. At Domotex 2012 Mapei displayed a complete range of these complementary products to improve the end result of flooring systems. Apart from the well-known ULTRAPLAN, a self-levelling compound, MAPECEM PRONTO SL has been introduced onto the German market, a pre-blended mortar for screeds from 20 to 70 mm thick. Its considered by many to be a real "problem-solver" on sites with very limited down-time, as floorings sensitive to damp may be installed after just



4 days. Suitable for repairing and renovating small surfaces, it may also be used on floors with heating systems using water.
And let's not forget FIBERPLAN self-levelling, fibre-reinforced, rapid-hardening skimming compound which was also in the spotlight. This product, highly appreciated for years and recently improved thanks to a fibre-based technology, is suitable for heated floors and, thanks to the fibres in the new formula, its levelling properties have been optimized and its strengthening capacity has been increased.
Among the brand new products on show there were ULTRABOND ECO V4 SP FIBER and ULTRABOND ECO 310. The first one,

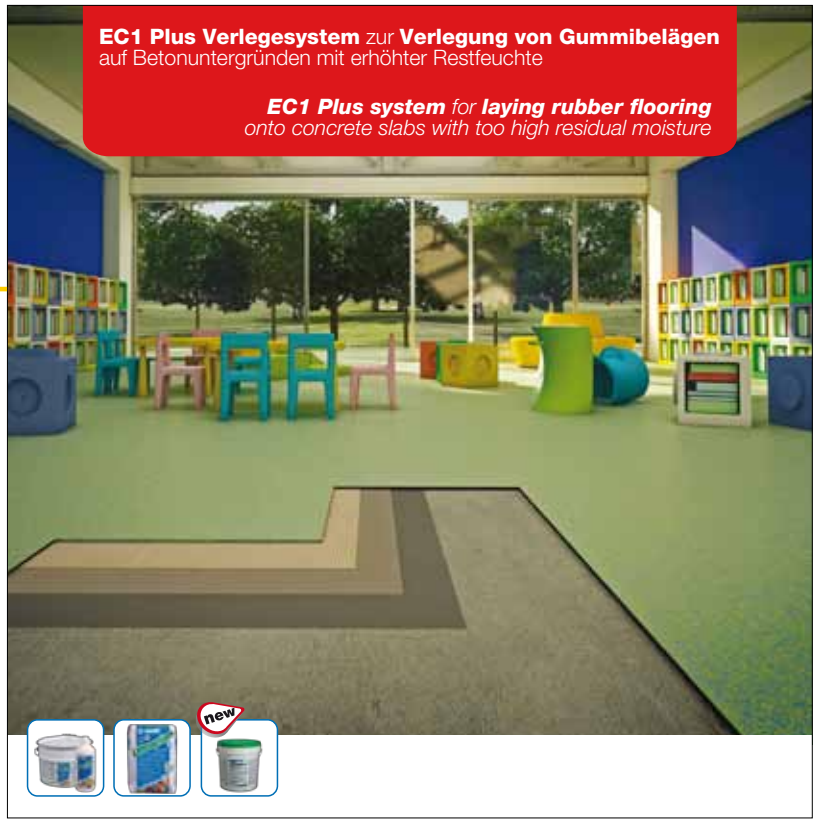
New at Domotex 2012

A new improved formula for FIBERPLAN self-levelling compound

New at Domotex 2012

The new adhesive ULTRABOND ECO V4 SP FIBER improves the dimensional stability of the flooring

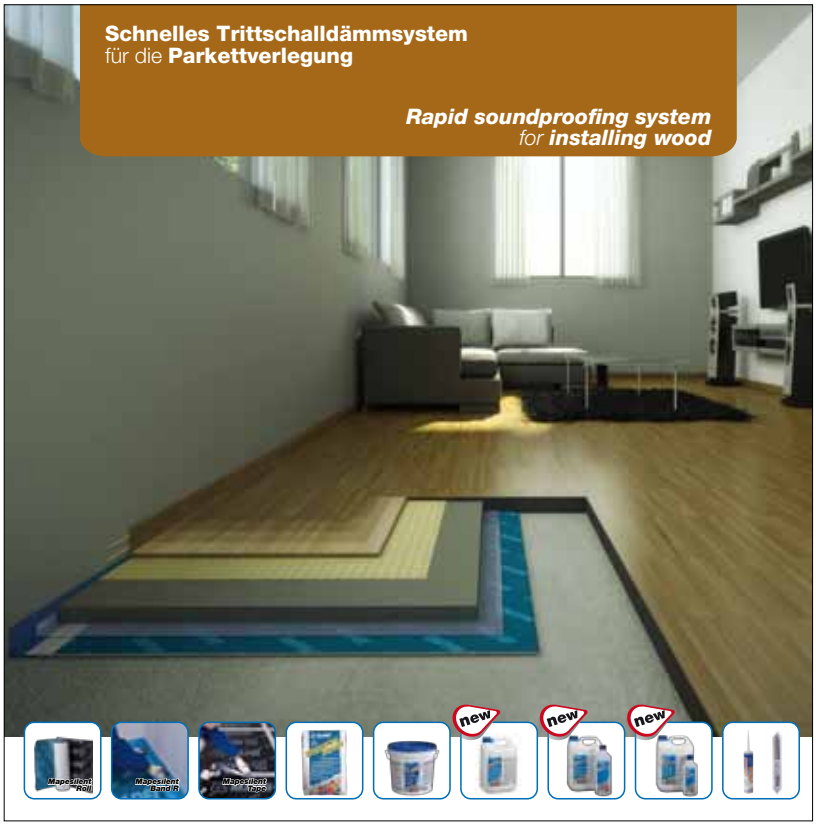
with its fibre-reinforced formula, is ideal for installing high quality PVC/CV and textile flooring, as well as being particularly easy to apply thanks to its creamy consistency with excellent trowellability.
Apart from being GEV EMICODE EC1 Plus and Der Blaue Engel certified, this adhesive allows consumption to be reduced by 10%, thanks to its high viscosity and the fibres which are part of its composition.
It is particularly suitable for PVC and rubber design floors, and offers up to 100% more dimensional stability compared with traditional adhesives, even at high temperatures.
ULTRABOND ECO 310 is a solvent-free, rapid-setting adhesive in water dispersion with very low emission level of VOC for multi-layered cork floor and wall coverings.
It excels for its excellent trowellability and high initial bond.
And let's not forget ULTRABOND ECO 520, the high-performance adhesive ideal for installing linoleum floorings with natural jute backing. Its special formulation gives the adhesive its rapid-setting property, ideal for use where time is limited.
This product is already in use on the most important sites around Europe and offers real, concrete advantages for floor layers.

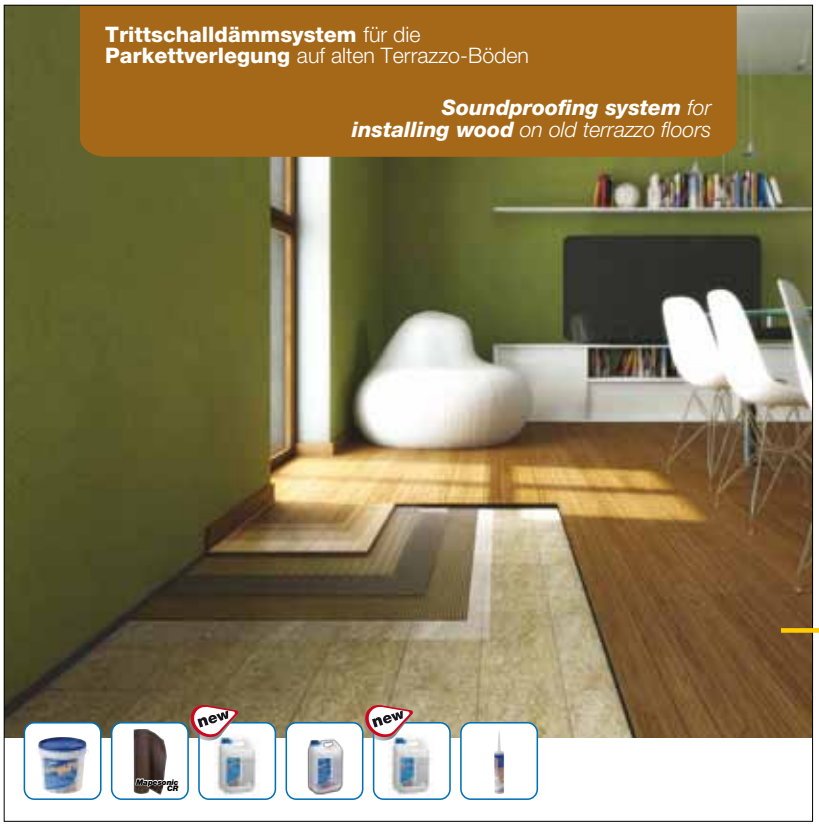


New at Domotex 2012

ULTRABOND ECO 310 is a rapid-setting adhesive for multi-layered cork

DOMOTEX 2012





Products for Laying Parquet

There are also new members in the ULTRACOAT family of products for the care of wooden floors:
- ULTRACOAT AQUA PLUS is a brand-new, one-component, water-based binder used to make grouts specifically for traditional and pre-sanded wooden floors and wooden floors requiring repair. It has excellent wetting properties, excellent workability and very low emission level of VOC.
- UITRACOAT PREMIUM BASE is a two-component, water-based primer for wooden floors with high isolating capacity. It has been developed for grouting wood without causing unsightly colour variations, making it particularly suitable for more difficult types of wood to avoid them becoming darker or redder.
- ULTRACOAT EASY PLUS and ULTRACOAT HIGH TRAFFIC are respectively one-component and two-component, water-based polyurethane varnishes for wooden floors. With their high resistance to wear and

New at Domotex 2012

ULTRACOAT EASY PLUS is a one-component polyurethane varnish for parquet

abrasion and very low emission level of VOC, these products are particularly suitable for floors subject to high volumes of pedestrian traffic.

Products for Soundproofing

At Domotex 2012 MAPESILENT was also in the spotlight. This is a modular system of special panels, sheets and soundproofing accessories to be directly installed on the floor slab and prior to laying the screed. It encloses MAPESILENT ROLL and MAPESILENT PANEL. MAPESILENT conforms to Italian legal requirements in terms of soundproofing against noise caused by footstep and creates screeds which are perfectly isolated from the substrate, in accordance with the Italian Decree DPCM 5.12.1997 and complies with UNI 11367 standards as for footstep noise. It can also be used on floating screeds before installing any type of covering materials (ceramics, stone materials, parquet, PVC, linoleum, rubber, etc.). For those floors where the existing floor covering cannot be removed, Mapei displayed a well-proven, efficient system: MAPESONIC CR, EMICODE EC1 Plus certified, an under-floor soundproofing system applied in a thin layer which counteracts the transmission of noise caused by footsteps. The sheets are made from recomposed cork and rubber bound together with a high quality polyurethane composite. They may be laid directly on any type of substrate and also on old floors, before laying any type of covering material.

New at Domotex 2012

ULTRACOAT AQUA PLUS is a brand-new, one-component, water-based binder for parquet

Trittschalldämmsystem für die **Parkettverlegung**
auf alten, unebenen Fliesenbelägen

Soundproofing system *for* ***installing wood***
on old, uneven ceramic floors

Trittschalldämmsystem für die **Parkettverlegung**
auf Estrichen mit Fußbodenheizung

Soundproofing system *for* ***installing wood***
on floors with a heated screed



Products for Sports Complexes

The range was increased with specific products for various areas of use in a number of sporting disciplines.
The Company is now ready for the 2012 Olympic Games which are to be held in London, with products and systems for installing indoor and outdoor sports surfaces, synthetic grass playing fields, tennis courts, swimming pools, and flooring in the main commercial and public buildings.
For installing synthetic grass, Mapei offers ULTRABOND TURF PU 1K and ULTRABOND TURF PU 2K. The latter is a two-component, solvent and water-free polyurethane adhesive with very low emission level of VOC for bonding synthetic grass surfaces. ULTRABOND TURF PU 1K, on the other hand, is a one-component, ready to use adhesive for bonding jointing strips between rolls of synthetic grass. This product is particularly suitable for bonding at low temperatures and, since it does not require a special hardener, errors during mixing are avoided and it may be used a number of times.
MAPECOAT TNS SYSTEM, the coloured acrylic resin coating system in water dispersion with selected fillers for indoor and outdoor tennis courts and multi-discipline sports surfaces was also displayed. This product offers excellent resistance to abrasion and to all climatic conditions, and forms a durable, protective layer on substrates which withstands the rigours of time. Specific adhesives for athletics tracks were on show again, with their excellent performance opportunities for athletes: ADESILEX G12 and ADESILEX G19 have been used to install tracks for the most important athletics arenas in the world, and for the Olympic Games in particular.

MAPECOAT TNS SYSTEM

A coloured acrylic resin coating system in water dispersion with selected fillers for tennis courts and multi-discipline sports surfaces

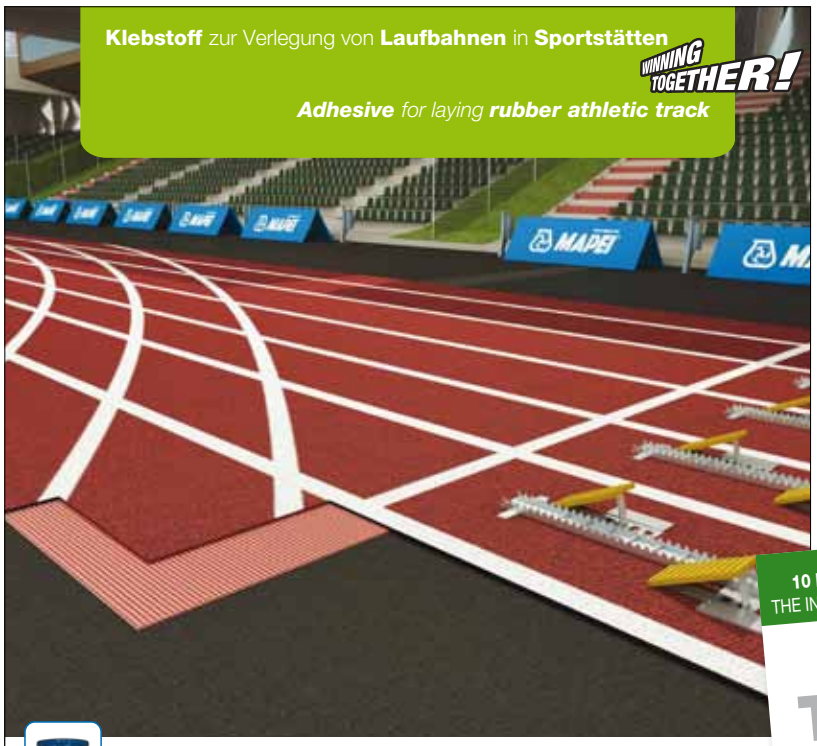
TOP TEN 10

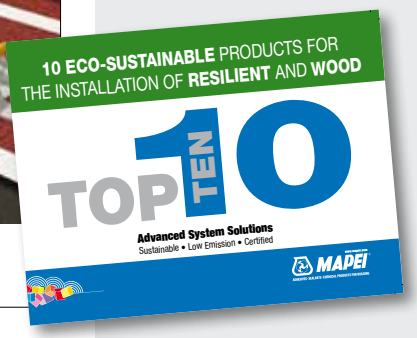
We selected our best EC1 Plus, EC1 R Plus, EC1, EC1 R and Blauer Engel certified products which belong to systems with low emission level of VOC for laying textile, resilient and wooden floor and wall coverings.

Klebstoff zur Verlegung von **Laufbahnen** in **Sportstätten**

WINNING TOGETHER!

Adhesive** for laying **rubber athletic track





Building in Hospital Environments

In hospital environments special attention needs to be paid to the effects of the materials on the health of both patients and medical and paramedical staff. Mapei has a wide range of adhesive systems for installing floor and wall coverings, with very low emission level of VOC. For instance, ULTRABOND ECO 520 is a one-component adhesive in water dispersion, with a high initial bond and very low emission level of VOC, specially formulated for installing linoleum flooring. It is ideal for surfaces subject to heavy foot and normal wheeled chair traffic.

The next edition of Domotex will be held in Hannover from the 12th to the 15th of January 2013.

EC1 Plus Verlegesystem zur **Verlegung von Linoleum**

EC1 Plus system** for **laying linoleum flooring

Applying the primer

Blinding with quartz before levelling

Applying the adhesive on the primer-treated substrate

Products for consolidating cementitious, anhydride and heating screeds and waterproofing cementitious screeds

MAPEI 75 YEARS OF EXCELLENCE 1937 • 2012

Mapei revolutionary primers are completely solvent-free and protect human health and the environment.
Easy-to-use, odorless, hypoallergenic, eco-sustainable, EC1 R and EC1 R Plus certified products.
Discover the world of Mapei: www.mapei.com

GEV-EMICODE EC 1 very low emission

GEV-EMICODE EC 1 PLUS very low emission

For 75 years we've been helping to build large and small dreams.

MAPEI®
ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING

BUNTE SCHOKOWELT IN BERLIN

Above. The entrance to Bunte Schokowelt in the heart of Berlin, near to the Gendamenmarket square.

Ritter Sport's new "Temple of Chocolate" rests on floors installed with Mapei adhesives

Every family has its own individual history. And the Ritter family has been jealously guarding a sweet secret for a hundred years: an infallible recipe to create successful chocolate. Over the years, the small family-run business, founded in 1912 in south-west Germany, has become a globally-recognised multi-national company with clients in 80 countries, and their history today is guided by the third generation of Ritters: Alfred T. and his sister Marli Hoppe. In 1932, after seeing one of her craftsmen with a bar of chocolate in his hands going off to play sport, Clara Ritter had the genial idea of creating chocolate which is now marketed under the name of "Ritter Sport". She wanted to create a size of bar which, even though it weighed the same as a normal portion of chocolate, could be carried comfortably in the pocket of any sportsman's jacket. And so the first Ritter chocolate bar was created, initially with the name "Sport Schokolade" and then "Ritter Sport Schokolade", and from the outset it stood out from the rest for its original square-shaped packaging, making it immediately recognisable. In 1970 the company started investing in advertising, particularly on television, to increase the brand's level of popularity. And amongst the slogans created in this period, there was the one which everybody now knows: "Quality. Chocolate. Squared". As famous as the numerous varieties on offer from Ritter: from classic milk chocolate to chocolate with hazelnuts, nuts and raisins, Napolitaner wafer or biscuits, and double chocolate (milk chocolate with white chocolate) or chocolate enriched with yoghurt and marzipan. All varieties are available in the traditional 100 gram bars, and also in the jumbo 250 gram bars or "mini-chocolate" size.

In the photographs.
In the Bunte Schokowelt PVC floorings with a wood-effect finish were installed in a number of areas using ULTRABOND ECO V4 SP.

IN THE SPOTLIGHT

ULTRABOND ECO V4 SP

It is a solvent-free, synthetic polymer-based single-coat adhesive in water dispersion, formulated in a ready-to-use light beige paste. It has an especially extended open time and is ideal for internal bonding of all types of vinyl, semi-flexible vinyl, rubber, polyolefines, needlepunch and carpet flooring, provided they are dimensionally stable. It can be used on non-absorbent surfaces as an alternative to polychloroprene contact or epoxy-polyurethane adhesives. It is easy to spread and has an excellent initial grab. After hardening, it forms a flexible and strong film and can take heavy foot traffic and wheeled chairs. ULTRABOND ECO V4 SP is not inflammable with very low emission level of volatile organic compounds (**EMICODE EC1 Plus** and **Blauer Angel**), it is therefore absolutely harmless to the health of the installer and the end-user.
It can contribuite to gain **3 points** for obtaining the **LEED** (Leadership in Energy and Environmental Design) certification.

The New Temple of Chocolate

In January 2010, Ritter Sport opened the Bunte Schokowelt, or "the Multi-Coloured World of Chocolate", near the Gendamenmarket square in the heart of Berlin. Covering an area of almost 1000 m^2, it offers visitors a variegated and unique selection of Ritter Sport chocolate. It represents a new concept in distribution, one which the company was all too keen to adopt. It isn't "just" a new sales outlet, but also includes a small artisan chocolate factory and a showroom for Ritter Sport products. Here, fans of chocolate can experiment all the different phases in making a bar of chocolate: from choosing the raw materials to final packaging.
On the ground floor of the Bunte Schokowelt there is a small chocolate factory, a coffee-bar and a "choc-shop". The "choc-shop" is a paradise on earth for all lovers of chocolate. There are all types and sizes of Ritter products on display (from mini-chocolates to 500 gram bars), Ritter back-packs and tennis shirts with the Ritter logo. And then there is the "choc-lounge", an area which is a cross between a coffee-bar and a lounge-bar, where the raw materials are experimented creatively: chocolate is used to make, amongst others, lasagne, Svevian gnocchi (Schokospätzle) and fondue, which can all be sampled in this area. And for those who are not content with a simple mug of hot chocolate, you can also make your own favourite flavour in the factory, or have your own personal flavour created by one of Ritter's master chocolate makers. And so, over three floors of heaven, visitors can witness a perfect mix of chocolate art and entertainment.

High Quality Floors for High Class Chocolate

In the modern rooms which house the Bunte Schokowelt, resilient floors have been installed with various optical effects. The international trend of preferring design floors in sales outlets was also adopted in most of the areas in this multi-functional building, with the addition of special final surface finishes to recall the effect of wood or metal. The wood-like effect on the floors add a natural touch of warmth to the rooms in the Bunte Schokowelt, along with the technical characteristics of resilient materials which guarantee ease of installation, good load resistance and ease of maintenance. Mapei ULTRABOND ECO V4 SP adhesive was used to install this type of flooring. This product is a multi-purpose, solvent-free acrylic adhesive in water dispersion, with extended open time and very low emission level of volatile organic compounds (VOC). It is particularly suitable for installing PVC, textile, linoleum, vinyl, polyvinyl and polyolephinic flooring, characterised by high adhesion properties and good tear and pull-off resistance. The product was particularly appreciated in this case by the floor layers for it is easy to spread and features extended open time, allowing installation operations to be carried out without rushing. The same adhesive was also used to install linoleum flooring in the kitchen on the ground floor and vinyl flooring on the ground and first floors.

TECHNICAL DATA

Ritter Sport Bunter Schokowelt, Berlin (Germany)
Period of Construction: 2009-2010

Year of the Intervention: 2011
Intervention by Mapei: supplying products for preparing substrates and laying PVC floorings
Project: vitamin e – Gesellschaft für Kommunikation mbh, Hamburg
Client: Alfred Ritter GmbH & Co. Kg, Waldenbuch (Germany)

Contractor: UNDKRAUSS Baugesellschaft GmbH, Berlin
Works Management: SPAR*K (Carsten Dankert, Gunnar Krempin, Malte Schröder), Berlin
Laying Company: TLC Construction GmbH, Berlin
Laid Materials: PVC design plancs (Amtico, Objectflor), linoleum (Forbo) and vinyl floorings (Forbo, Tarkett)
Mapei Co-ordinator: Günther Hermann, Mapei GmbH (Germany)

MAPEI PRODUCTS
Preparing the substrates: Eco Prim T, Eporip Turbo, Latex Plus, Nivorapid, Ultraplan Eco
Laying PVC floorings: Ultrabond Eco V4 SP.
For further information on the products see www.mapei.com.

Professional Installation with Mapei Products

Prior to installation, the floor substrate had to be prepared correctly to make sure installation of the flooring satisfied the high demands of the works management, and to ensure it was strong enough for the flooring itself to be installed. For this operation, as with installation of the flooring, the company carrying out the work opted for Mapei products.
To create a substrate suitable for installation, first all the cracks were sealed with EPORIP TURBO two-component, quick-hardening polyester resin. Certain critical areas were also treated with NIVORAPID thixotropic, cementitious smoothing compound mortar mixed with LATEX PLUS to increase its deformability and adhesion of the flooring to be installed later. The surfaces were then treated with ECO PRIM T solvent-free acrylic primer, with very low emission of VOC.
On absorbent substrates, such as those in cementitious material, this product has to be applied diluted with water at a rate of 1:3. The use of ECO PRIM T makes substrates suitable for the successive levelling layer, in this case made using ULTRAPLAN ECO self-levelling mortar for layers from 1 to 10 mm thick, with very low emission level of VOC. The installation company chose this product especially for its hardening speed and excellent ease of application by trowel.
The use of Mapei products to prepare the substrates was fundamentally important for a successful outcome to the installation operations, because only a substrate which is properly levelled, dry and resistant is suitable to guarantee good results when installing PVC floorings.

This article was taken from *Realtà Mapei* n. 11, the in-house magazine published in German language by Mapei GmbH (Austria), Mapei GmbH (Germany), and Mapei Suisse SA (Switzerland).

THE MADAME TUSSAUDS MUSEUM OF BERLIN

A stroll amongst wax statues on PVC floors installed using Mapei products

What have the wax figures in the Madame Tussauds Museum of Berlin and the PVC floors they stand on have in common? They are both so similar to the original that it defies belief. In the Berlin museum dedicated to Madame Tussauds, the French lady who created incredible wax statues between the eighteenth and nineteenth centuries, various types of PVC floors have been installed using Mapei systems and technology, to guarantee a perfect, secure result.

There are a number of Madame Tussauds museums in cities all over the world, including London, Amsterdam, Berlin, Hong Kong, Las Vegas, New York, Shanghai, Washington and Hollywood. The Berlin museum opened in 2008 in Unter den Linden avenue. While strolling around the museum, which takes around two hours, visitors can admire the perfect reproductions of German and international stars and VIP's, sporting heroes and famous historical characters, all standing on PVC floors with either a wood, metal or natural stone effect finish. Thanks to their variety and captivating optical effects, the floors themselves offer a spectacular show to the public.

Perfect Installation...

The PVC floors in the museum are an excellent solution to the problem of durability caused by the high number of visitors (approximately 5,000 people every day), and other events which are occasionally held in these areas, such as sports events, gala evenings and product presentations. The technical characteristics of PVC floors are more than a match, and guarantee high resistance to loads and easy maintenance. This type of floor is also characterised by its ease of use, non-slip surface and ease of installation. And ease of installation is further enhanced when it is carried out professionally.

The thirty seven different types of PVC were bonded to the floors of the museum using ULTRABOND ECO V4 SP adhesive.

Thanks to its high adhesion properties and high tear and pull-off resistance, this solvent-free, multi-purpose acrylic adhesive in water dispersion with very low emission level of volatile organic compounds (VOC) and extended open time is particularly suitable for installing PVC floors. These characteristics, which guarantee maximum safety to floor layers, have opened up a large market for the product, and it has been employed on a number of international sites.

This is because ULTRABOND ECO V4 SP is suitable for bonding not only PVC, but also all types of textile, linoleum and needlepunch floors, as well as floors made from vinyl, rubber and polyolefin. So it comes as no surprise that professionals from the flooring sector involved in this project appreciated the workability and extended open time of this product, which allowed them to carry out installation without having to rush.

...and Professional Substrate Preparation

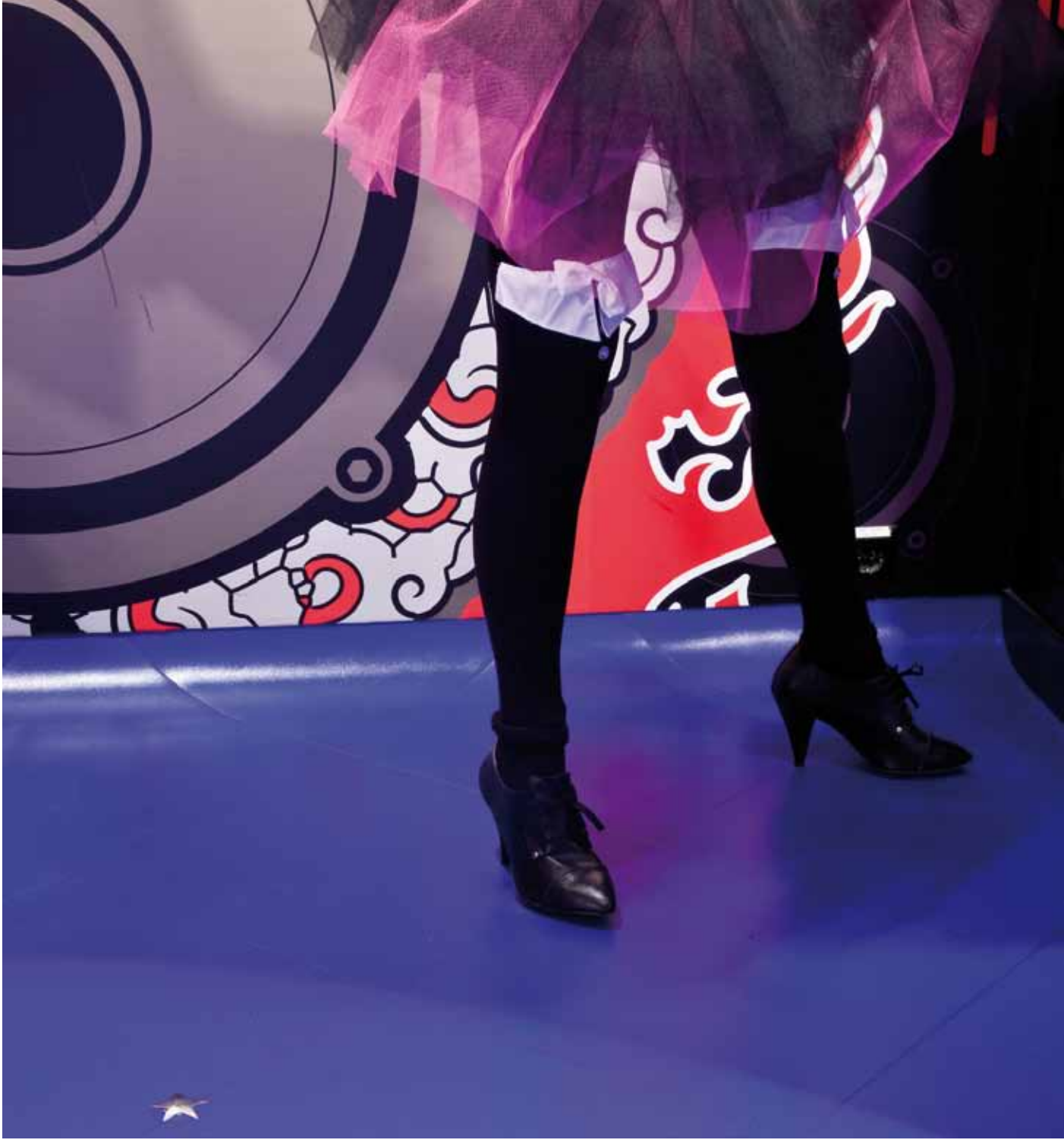
Prior to installation, the substrate had to be treated and prepared correctly to make sure installation of the flooring satisfied the high demands of the client, and Mapei products were also chosen for this phase. The existing natural stone surface was initially treated with ECO PRIM T solvent-free acrylic primer with very low emission level of VOC.

This high quality product may be used either as is, or diluted 1:1 with water for non-absorbent substrates. On absorbent substrates, such as cementitious material, it should be

IN THE SPOTLIGHT

ULTRAPLAN ECO

It is an ultra-fast hardening self-levelling compound with very low VOC emission level. ULTRAPLAN ECO is used for levelling and removing differences in thickness from 1 to 10 mm on new or existing substrates in interior areas, preparing them to receive any kind of flooring where an excellent resistance to loads and traffic is needed. It is particularly suitable for areas subject to wheeled chairs. The smoothing compunds prepared with ULTRAPLAN ECO are classified as **CT-C25-F7-A2fl** according to **EN 13813**. It can contribute up to **3 points** to obtain the **LEED** certification.



applied diluted at up to 1:3. With this type of product, ideal preparation of the surface is guaranteed, making it suitable for the successive levelling layer of ULTRAPLAN ECO self-levelling, ultra quick-hardening levelling mortar for layers from 1 to 10 mm thick, with very low emission level of VOC.

ULTRAPLAN ECO has been widely praised for its excellent workability and setting speed, as well as its excellent workability and self-levelling properties, because only a sufficiently levelled, dry and resistant substrate will suffice to guarantee good results when installing PVC coverings.

So it may happen that visitors to the Madame Tussauds museum in Berlin are unsure whether they are looking at the real thing, and not only when they are admiring the wax figures but also the floors, because they are so similar to the original source of inspiration. And only after a second look do they realise that it is a perfect reproduction of the original… just like when admiring the statues.

This article was taken from *Realtà Mapei* n. 11, the in-house magazine published in German language by Mapei GmbH (Austria), Mapei GmbH (Germany), and Mapei Suisse SA (Switzerland).

In these images.
Various types of PVC were bonded with ULTRABOND ECO V4 SP on the floors where the wax statues stand. Their surfaces have finishes with special effects, which reproduce materials such as wood, metal and natural stone.

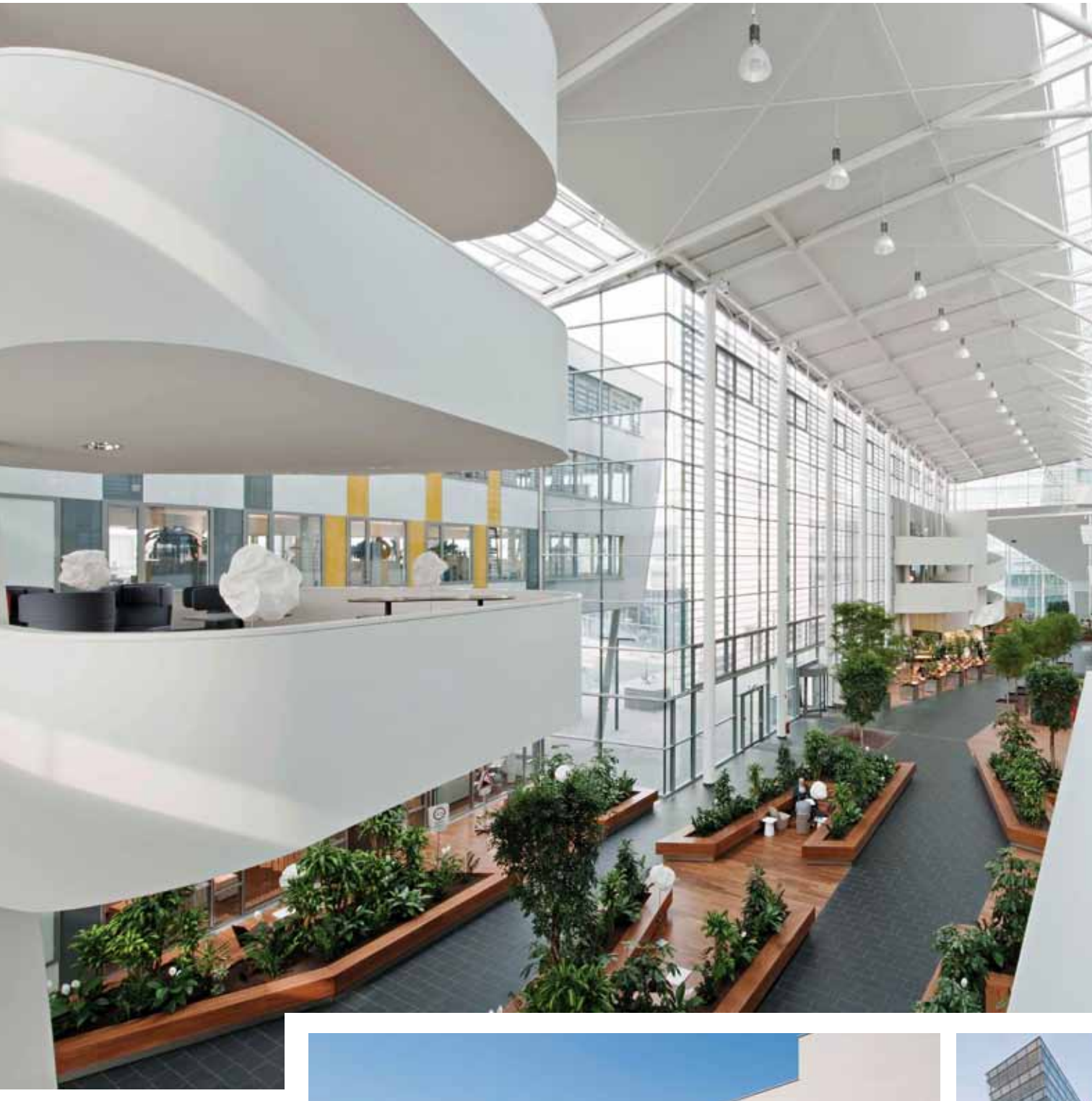
TECHNICAL DATA

Madame Tussauds Museum
Berlin (Germany)
Project: Merlin Studios, London

Period of Intervention: 2007 – 2008
Intervention by Mapei: supplying products for preparing substrates and laying PVC floorings

Project: AM Architektur und Management, Berlin
Client: Madame Tussauds Berlin GmbH, Hamburg (Germany)
Contractor: UNDKRAUSS Baugesellschaft GmbH, Berlin
Works Management: UNDKRAUSS Baugesellschaft GmbH, Berlin
Laying Company: TLC Construction GmbH, Berlin
Laid Materials: 37 types of PVC floorings (Design Planks)
Mapei Co-ordinator: Günther Hermann, Mapei GmbH (Germany)

MAPEI PRODUCTS
Preparing the substrates: Eco Prim T, Ultraplan Eco
Laying PVC floorings: Ultrabond Eco V4 SP
For further information on the products see www.mapei.com.



Left and above.
Siemens City in Vienna is characterised by its open, winding form.
In the photo in the middle: the conference centre. Left: a view of the Communication Line, the structure which unites each single section within the complex.

SIEMENS CITY IN VIENNA

A futuristic complex, a model of eco-sustainable construction

Siemens officially opened its new Austrian headquarters in June 2010. "Colonisation" of the new "city" by 6,000 Siemens employees started when the first group transferred to the new buildings in December 2009, and was completed during 2010. The complex includes two recently-constructed buildings, the Tower and the north wing, and several existing buildings adjacent to the new structure on Siemensstrasse.

A fundamental concept at the base of the design work was the interrelationship between the various areas, both on the outside with natural elements surrounding the complex, and on the inside with the so-called Communication Line. The Communication Line is a space of approximately 3,300 m^2 which unites various sections, and acts as a central meeting point for the complex: this area also houses a bank, a mini-market, a travel agent and a photocopy shop.

A 55 Metre Tower of Cutting-Edge, Energy-Saving Solutions

The complex rises in an area famous for being the company's traditional headquarters in Austria: Siemenstrasse 21, in the Floridsdorf district of Vienna. There are 3,000 parking spaces, gardens, 3 restaurants, a bistrò and a coffee-shop. The north wing is four storeys high and houses approximately 1,200 employees.

The focal point of the complex, which has become a characteristic sight on the Vienna skyline, is the 52 metre tall Tower, which also houses approximately 1,200 employees. The architectural form of this 12-storey building opens outwards towards the Siemensstrasse, as if it were an invitation to enter, and seems to incarnate a union of the company's open, transparent corporate culture and its brave, pioneering spirit. The difficult task of achieving such an effect went to the Viennese architectural studio Soyka/Silber/Soyka, winners of an international competition launched by the city of Vienna.

The new buildings stand out for the principles of eco-sustainability applied for their construction and the use of modern construction technology. Air-conditioning in the complex is provided by a geothermal system based on around 120 concrete pillars with a diameter of one metre, extending 30 meters into the earth, which heat the buildings' offices in winter and cool them in summer through special conductor pipes. Water is heated by a rooftop solar collector surface with an area of 200 m^2. 75% of the exhaust air energy produced is recovered via heat exchangers placed on the roofs. The Siemens City building management system, which can access some 10,000 sensors, provides extremely energy-efficient lighting, room temperature and ventilation control. For example, heating and lighting systems in an office are automatically shut down when a sensor signals that all employees have left the room. The energy-efficiency measures implemented in the new headquarters reduce annual CO_2 emissions by 1,000 tons. As a result, Siemens City has already received European Union Green Building status for energy-efficient buildings.

Respect for the Environment

The architectural design of Siemens City is fully in line with Mapei's corporate philosophy, which has always targeted Research & Development activities into new products which are safe for the environment, for installers and for end users. Many of Mapei's eco-sustainable solutions have been certified by internationally-recognised bodies and carry the "Green Innovation" logo.

This is why the Company, with its local subsidiary Mapei GmbH and a production facility based in Austria, was chosen to supply solutions to lay 20,000 m^2 of ceramic and natural stone floor and wall coverings.

The surfaces in all the rooms with damp conditions (bathrooms, kitchens, etc.) were initially treated with PRIMER G synthetic resin primer with very low emission level of volatile organic compounds (VOC), then waterproofed with MAPEGUM WPS quick-drying, flexible liquid membrane. For the corridors, storage rooms for beverages and the ser-

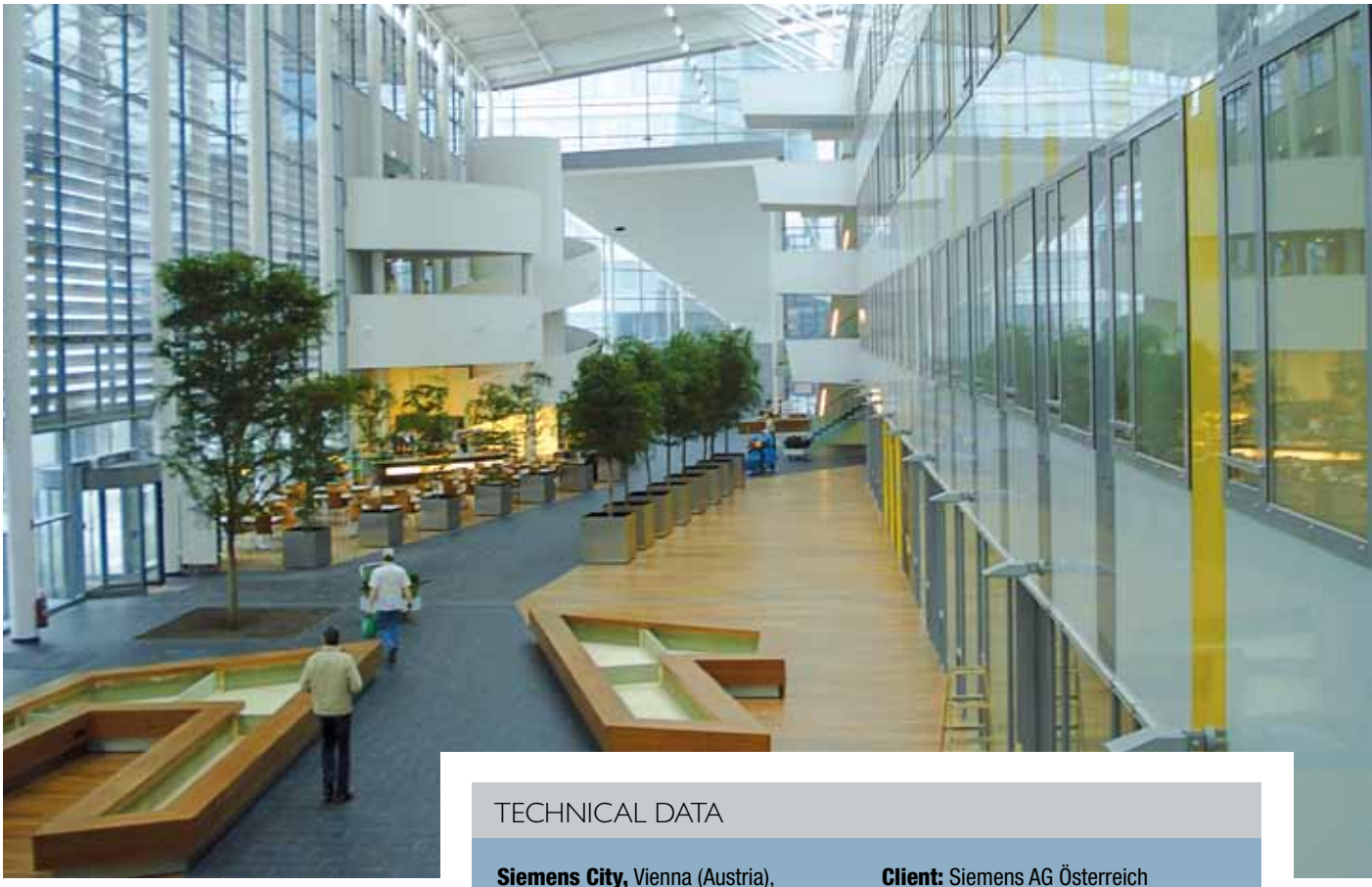
IN THE SPOTLIGHT

ADESILEX P9

It is an improved **(2)** slip resistant **(T)** cementitious adhesive **(C)** with extended open time **(E)**, classified as **C2TE** according to standard **EN 12004**. It is used for interior and exterior bonding of ceramic tiles and mosaics on floors, walls and ceilings. It is also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit® (wood-cement panels), sound-deadening panels, etc. ADESILEX P9 is easily workable, highly thixotropic; it features extended open time, perfect adherence to all materials normally used in building, and minimal shrinkage.
It is **EMICODE EC1 R Plus** certified and can contribute up to **3 points** to obtain the **LEED** (Leadership in Energy and Environmental Design) certification.

Above and below. Ceramic tiles were laid in the kitchens and dining areas on various floors of the complex using KERAFLEX MAXI S1.
In the next page. In the Communication Line area, MAPELASTIC was used to waterproof the substrates, ADESILEX P9 and KERAFLEX MAXI S1 were used to bond the ceramic tiles and KERACOLOR FF was used to grout the joints.

vice areas in the floor below ground level, as well as the corridors and dining areas on the ground floor, on the other hand, MAPELASTIC flexible cementitious mortar was selected to waterproof the substrates.
The walls and floors in all the toilets, the floors in all the kitchens, corridors, storage rooms and service rooms on the floor below ground level, and the walls and floors in the corridors, service rooms and dining areas on the ground floor and in the Communication Line, were covered with grey, black and white ceramic tiles in various sizes. ADESILEX P9 cementitious adhesive with no vertical slip and extended open time with very low emission level of VOC was selected for laying the tiles.
On the stairs to all the floors (including those



below ground level), and on the floors and walls in some of the dining areas, ceramic tiles in various sizes were laid with KERAFLEX MAXI S1 deformable cementitious adhesive with no vertical slip.
In the entrance hall and on the ground floor, the floor substrates have a monolithic, concrete heated floor slab which, when the flooring was laid, was in its third month of drying. The adhesive used, therefore, had to be a highly deformable and rapid drying one.
After carefully checking all the conditions (such as the layout of the expansion joints), it was decided to use ULTRAFLEX S2 QUICK one-component, deformable, rapid-setting and drying adhesive, produced in Germany by one of Mapei's subsidiaries and distributed in Austria by Mapei GmbH.
In the company canteen and kitchen, the substrates had a calcium sulphate screed. The screed was initially treated with PRIMER G and then waterproofed with MAPELASTIC. Natural stone slabs were laid with KERAFLEX MAXI S1. Natural stone was also bonded to the walls in the dining area of the canteen using the same adhesive, after applying a coat of ECO PRIM GRIP primer to promote good adhesion.
All the floor and wall coverings were grouted with KERACOLOR FF pre-blended, cementitious mortar with water-repellent DropEffect® technology. The expansion joints were sealed with MAPESIL AC silicone sealant with BioBlock® technology.

TECHNICAL DATA

Siemens City, Vienna (Austria),
Project: Architekten Soyka/Silber/Soyka ZT-GmbH, Vienna
Period of Construction: 2008 – 2010

Year of the Mapei Intervention: 2010
Intervention by Mapei: supplying products for preparing substrates and laying ceramic tiles and natural stones on wall and floor coverings

Client: Siemens AG Österreich
Contractor: ARGE PORR-STRABAG
Laying Company: FLIESEN PERL, Stoob (Austria)
Laid Materials: ceramic tiles and porcelain tiles by Marazzi, natural stones by Rauriser Naturstein
Mapei Co-ordinators: Ing. Stefan Schallerbauer and D.I. Fares Maghsood, Mapei GmbH (Austria)

MAPEI PRODUCTS
Treating and waterproofing the substrates: Eco Prim Grip, Primer G, Mapegum WPS, Mapelastic
Laying ceramic tiles and natural stones: Adesilex P9, Keracolor FF, Keraflex Maxi S1, Mapesil AC, Ultraflex S2 Quick
For further information on the products see www.mapei.com.

This article has been taken from issue 11 of *Realtà Mapei*, the in-house magazine published by Mapei GmbH (Germany) and Mapei GmbH (Austria), whom we would like to thank.

MAPEI SOLUTIONS FOR SOUNDPROOFING FLOOR SLABS

Maximum comfort… according to law

Over the last few decades, the relentless growth of urban development and our increasingly densely populated cities have led to an inevitable increase in the number of sources of potentially disturbing noise perceived in buildings, with noise coming both from outside, such as from traffic and production activities, and noise from inside the buildings, such as noise from neighbours, lifts, heating and air-conditioning systems and hydraulics systems. The constant increase in the quality of life, and the diffusion of the concept of living comfort, have increased the phenomenon, and in the most serious of cases is even perceived as social discomfort. This is the reason why several countries issued laws regarding acoustic pollution. Amongst the enormous range of noises which can be perceived inside buildings, the ones which disturb people the most are those caused by impact, which are generated by footsteps or by objects being dropped or dragged.

It is possible to obtain sufficient insulation against impact noises between different buildings by interposing an element with the capacity of dampening vibrations between the source of the noise and adjacent buildings. As circumstances or conditions change, this element may be applied in various points: between the naked-slab and the screed, or between the screed and the flooring, as well as directly underneath the floor slab by creating a false ceiling. The latter solution, which is often employed for interventions in existing buildings or inside rooms disturbed by noise, is often not particularly efficient because it is not possible to prevent lateral

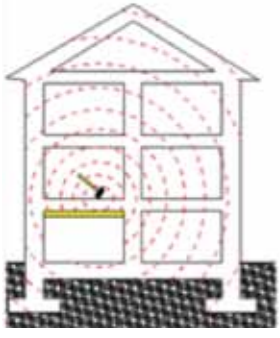


Figure 1. Impact noise is propagated through walls, making the insulating action of false ceilings ineffective.

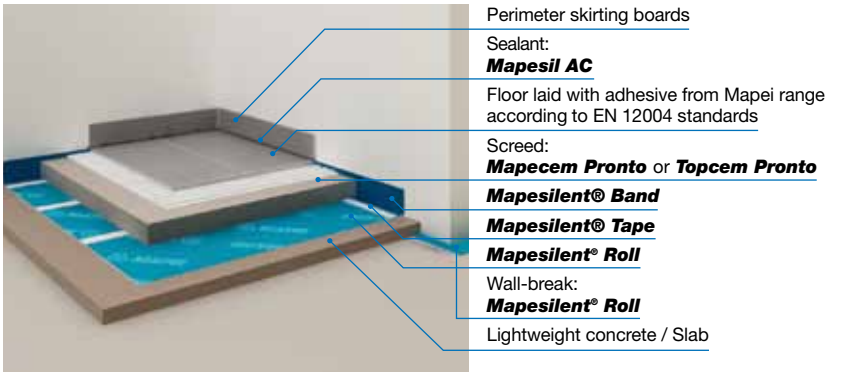
Figure 2. A floating screed allows for much better soundproofing.

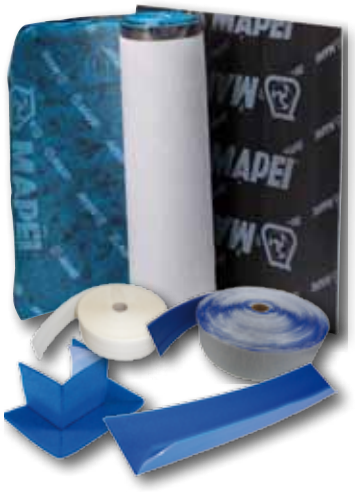
transmission of noise, which then propagates through the walls (Figure 1).
For this reason, the most widely adopted solution is a floating screed, created by interposing elastic material between the load-bearing structure or a levelling layer and the screed (Figure 2). An alternative solution is to soundproof the floor slab by positioning the elastic material directly under the floor.
The most important physical property, which is taken into consideration when choosing which soundproofing material to combat the noise of footsteps should be applied under the screed, is its *dynamic stiffness* S', which identifies the capacity of a resilient material to dampen the vibrations of a stressed structure. Unfortunately, this value is often confused with *apparent dynamic stiffness* S'_t, a value mentioned in a number of product technical data sheets and, in certain cases, even passed off as S'. As a consequence, this incongruity inevitably leads to the performance level that a soundproofing material can achieve being overestimated. This is why the values indicated on technical data sheets should be compared with those indicated on the laboratory test certificates that the manufacturer must always supply, and which should be compiled by an independent third party organisation.
Another parameter which is often misunderstood, or is used incorrectly when comparing different soundproofing mats, is *reduction of noise due to footstep* ΔL_w, which identifies by how many decibels (dB) the material is able to reduce noise. In this case too, the value is often mentioned in technical data sheets without declaring exactly how the value was obtained. On this subject, the only way of confirming the value is to check the relative laboratory test certificate, which must describe the test method used and, in particular, any deviations from the standard test methods described in the current reference standard (ISO 140). In fact, if we take a close look at most laboratory test certificates for these materials, we can see that the tests are not usually carried out according to the standard (on a 14 cm thick reinforced concrete floor slab at least 10 m^2 wide) but they are performed on a 1x1 m mat. Therefore, since it is impossible to carry out an objective comparison between materials under the same test conditions to help us choose the most suitable material, we must compare the technical data sheets, laboratory test certificates and the certificates for acoustic tests carried out on the material on-site by a qualified third-party acoustic expert. This test, carried out by placing a normalised tapping machine on the floor and measuring the noise generated by the simulator in the room below with a phonometer is, in fact, the only way of ascertaining the real performance offered by a soundproofing system, and to certify the effective correspondence of the system with the soundproofing requirements of current legislation regarding the noise by footsteps.

Under-screed Soundproofing System: MAPESILENT

Mapei has developed a specific range of certified products to soundproof floor slabs against impact noise. In newly constructed buildings, or where flooring and the underlying screed are to be restored, Mapei proposes the use of MAPESILENT, a modular membrane system for soundproofing and thermally insulating floor slabs. The MAPESILENT system, available in rolls and panels called MAPESILENT ROLL and MAPESILENT PANEL, is a simple, reliable solution to create float-

Thermal insulation with floating screed





Above. Silence is golden. Mapei offers MAPESILENT and MAPESONIC CR, easy-to-use soundproofing systems against noise caused by footstep.

ing screeds completely isolated from the substrate. In the technical data sheets for all the products in the MAPESILENT range, the values for apparent dynamic stiffness and dynamic stiffness are clearly defined, and laboratory test certificates are accompanied by certificates for numerous acoustic tests carried out on materials on-site by qualified third-party acoustics experts, certified by the relevant local authorities, showing a reduction of noise due to footsteps ΔL_w of more than 35 dB.

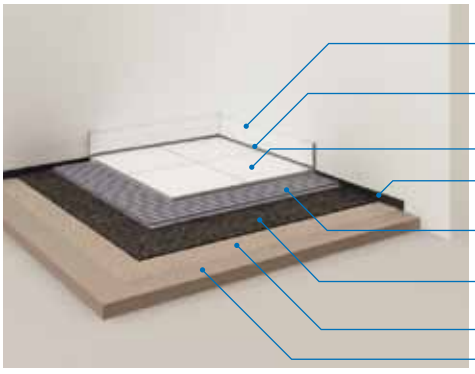
Under-floor Soundproofing System: MAPESONIC CR

Even though a floating screed is the best performing and controllable technical solution, and the only one which allows the performance of installed soundproofing systems to be calculated analytically according to the methods proposed in UNI EN 12354, it is not always possible to apply this solution. A typical case is represented by existing buildings, where it is often impossible or too costly to dismantle the existing flooring and install a soundproofed floating screed. In these circumstances, the only solution is to install an under-floor soundproofing system such as MAPESONIC CR, a thin, rubber and recycled cork soundproofing membrane, which is applied on top of cementitious substrates or old ceramic or stone flooring before installing new ceramic, stone, multi-layered parquet or resilient flooring.

Dedicated Mapei soundproofing products offer a high standard of certified quality and comply with the requirements of current legislation, and maximise the level of perceived wellbeing inside buildings. The Group's Technical Service Department has highly-specialised personnel to follow every phase of the architectonic process, working alongside designers to help select the most suitable solution to employ.

Antonino Munafò. Mapei SpA
Soundproofing System Technical Expert

Under-floor soundproofing system



SPORTS SUB-BASE CONSTRUCTION

Mapei's new technology for synthetic turf sub-bases construction

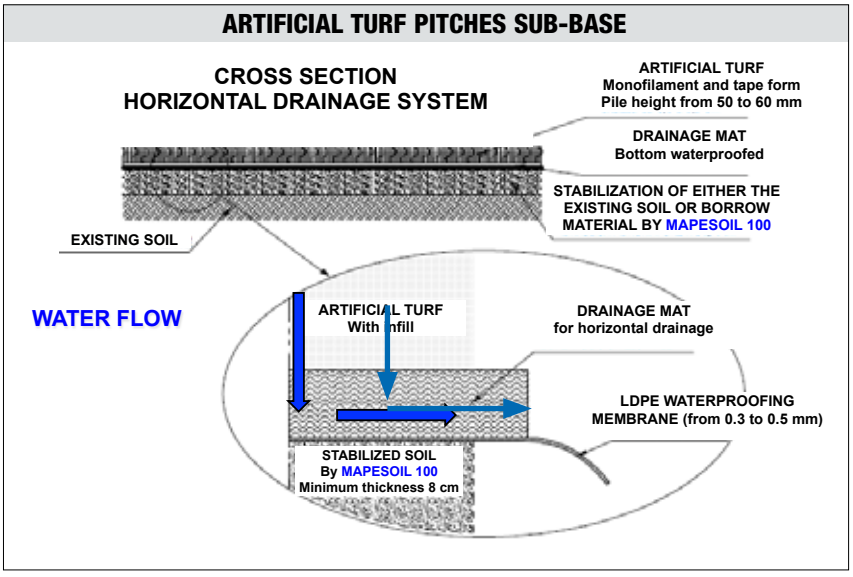
Synthetic turf sport surfaces have grown in popularity significantly over the last decade, thanks to the considerable advantages they offer compared with natural grass and the technological improvements developed by companies specialised in sports construction.

The first synthetic turf used in sports construction dates back to the 1960's in the United States, when short pile height turf with no infill was installed in the Astrodome Stadium in Houston Texas. The field in Texas was the real starting point for the development of synthetic turf, initially made from polypropylene fibres with silica sand infill (the so called "first generation" turf), then later changed to polyethylene fibres ("second generation" turf), which was considered less aggressive when it came into contact with the players' skin.

The "third generation" of synthetic turf dates back to the 1990's and witnessed the introduction of individually-extruded polyolefin fibres infilled accordingly with silica sand and rubber granules. Apart from the stabilising infill (sand), the concept of so-called performance infill (rubber granules) was also introduced with the aim of improving the field's performance, and safety during games.

The benefits were considerable and introduced shock absorption, better ball bounce, and played closer to that of a well tailor-made natural grass field.

The performance of the field must remain constant during severe weather conditions. During a rain storm an efficient drainage system is also required for synthetic grass, to guarantee the functionality of the playing area.



Vertical and Horizontal Drainage

With the traditional drainage system under synthetic sports fields, rainwater runs off vertically through the synthetic grass surface and the sub-base made up of selected aggregates (with a variable thickness from around 20-50 cm). The water is then collected in a network of micro-perforated drainage pipes. With a vertical drainage system, apart from the amount of time required to install it, huge amounts of high-quality, selected aggregates need to be hauled onsite (more than 1,500 tons for a full size field of 7,000 m^2), costly material which is often unavailable near the proposed site. Also, the "vertical permeability" of a sub-base, which means the capacity of flowing water to pass through the stone within a certain period of time (e.g. 360 mm/hour needed according to the L.N.D., the Italian Amateur Football Association regulations for 2011), decreases over the years due to the natural and unavoidable phenomenon of the migration of the finer aggregate particles in the direction of flow (from the top layers towards the lower layers). Over the years, this phenomenon reduces the drainage capacity of the stone sub-base, which will result in standing water and have a negative impact on the functionality of the playing surface during inclement weather.
Since 2007 a new, pioneering horizontal drainage system has been in use in Italy, introduced by the LND. With this system, the water flows below the turf surface and a waterproof drainage layer is installed between the synthetic turf surface and the sub-base (either a membrane with an elastic mat or a geo-drainage fabric with longitudinal channels), which enables water from rain or irrigation to flow off horizontally. The water flows off from the centre of the field toward the longest sides into drainage channels positioned around the edge of the playing surface.
With horizontal drainage of the surface, the sub-base is the key element to the correct functionality and efficiency of the entire system.
Therefore, it must have certain technical characteristics:

- Planarity: the surface of the sub-base must not have any undulations to ensure that water flows evenly and does not stand locally;
- Slope: the surface of the sub-base should maintain a consistent slope from the centre of the field towards the side lines (from 0.58% to 0.63%), to guarantee that water flows off by smoothly and consistently.
- Volumetric stability: the sub-base must maintain its planarity and slope over the years to guarantee the functionality of the playing surface;
- Mechanical strength: the sub-base must be strong enough to bear moving vehicles during installation and during regular maintenance of the sports field.

New Mapei Technology

Mapei has always been actively committed to technical and scientific research and applying it to the sports world. Today Mapei contributes a new technology for synthetic turf playing surfaces, by developing a specific product used to build sub-bases with a horizontal drainage system: MAPESOIL 100.
This technical solution, developed and perfected in Mapei's Research & Development laboratory specifically for the sports facilities sector, is based on the technical requirements of C.I.S.E.A. (the Italian Federal Sports Facilities Commission — Artificial Turf Department). It uses a powdered, fiber-reinforced stabilising agent with hydraulic properties, MAPESOIL 100, which is mixed with the existing soil to give the sub-base characteristics which create the correct horizontal drainage properties for the synthetic turf system.
Thanks to its special formula, it can be used successfully for the following applications:

- to make sub-bases for synthetic grass playing surfaces (e.g. football fields, etc.);
- to consolidate and stabilise sub-base for existing playing surfaces (e.g. clay tennis courts, earth-rammed fields);
- to cold recycle old substrates for existing playing surfaces which require replacement of the old synthetic turf surface (sub-base made of bituminous conglomerate).

Through its consolidating action, MAPESOIL 100 helps to modify and improve the physical and mechanical properties of the material (aggregate and soil) to be stabilised: workability, load-bearing capacity, volumetric stability and strength.

Application Phases for MAPESOIL 100

MAPESOIL 100 can be used to treat a wide range of soils, using both the on-site soil (in the case of an existing playing field for example) and recycled material, thus avoiding the use of raw selected aggregates coming from stone quarries. The application of MAPESOIL 100 requires the use of simple equipment which is generally easy to find in agriculture (tillers, stone buriers, top dressers, etc.) and consists in mixing the fibre-reinforced powder directly with the material to be treated, with the addition of water if required to activate the product itself. The product is applied as follows:

INTERVIEW
Antonio Armeni, Chairman of the Sports Infrastructures Commission – Italian Amateur Football Association

Mr. Armeni, the Italian Amateur Football Association published the new regulations for the latest generation of artificial grass pitches in 2011. In your opinion, what are the most significant new developments in the latest "Standard" and "Professional" regulations?

The most important changes are with the "Professional" regulations, which have been written by taking into consideration the performance results of matches in particular, with the aim of satisfying the expectations of professional players and, as a result, to meet the requirements needed for competitions in the various "Premier Leagues" around the world. It is well known that FIFA has authorised the use of artificial pitches for the Champions League and for the UEFA League for quite some time, a disposition which was initially ignored, but in the last few years there has been quite a change, and this new type of playing surface is becoming more and more accepted by clubs in the Premier Leagues.

In the "Standard" regulations, apart from them being updating so that they comply with variations in the norms for certain laboratory tests and the introduction and use of more suitable and better performing new components, we have also inserted compulsory tests to be carried out in geotechnical laboratories, to guarantee that stabilizing the sub-base of pitches with chemical agents is carried out professionally, and in exactly the same way, wherever it is carried out. The stabilizing phase is of primary importance to make a quality sub-base to guarantee planarity flatness and the correct slope, and that there are no areas which could later settle (which would create undulations that are difficult to eliminate once the pitch has been inished), and which would compromise the efficiency of the horizontal drainage system.

After more than a year since the new regulations were issued, what results have been reached in the 2011 season? Do you believe quality standards have improved even further?

The two new regulations were increased gradually in 2011 so that industry could take the new guidelines and the new work methods on board. And today, we can clearly see that there has been an immediate improvement in the quality of how pitches are installed and prepared. And during 2012, we will certainly witness a considerable difference in the quality of work carried out on site.

On the basis of the experience gained in Italy, do you believe that the horizontal drainage system for sports fields will also be applied abroad?

My experience has been gained principally on the Italian market, and is the fruit of the studies and research that the Italian Amateur Football League has carried out to reach and maintain the level of excellence in synthetic turf sports surfaces.

While carrying out my work, I have also got to know the European markets, but above all it has been possible to export the results of our knowledge to other federations, such as FIFA, with which we work on a support basis in the development of this type of surface, as well as natural grass. The horizontal drainage type of sub-base under the turf surface was initially not taken into particular consideration, but in just two seasons, the situation has changed so much that there have been requests for this technology in various European countries, which by the way require components developed by us and which requires specialist training courses in order to create substrates correctly. We also went beyond this. Since the Italian Amateur Football Association is part of the UNI organisation, and a member of the body which represents Italy in the work group which writes the European norms, we asked for this type of horizontal drainage sub-base to be inserted into the European standards, and it was readily accepted with great interest.

Horizontal drainage systems are used in nearly three quarters of all artificial turf fields built every year in Italy with the rest of Europe only a few steps behind.

Application phases for Mapesoil 100

Topsoiling of the old natural grass surface

Spreading on the **Mapesoil 100** with a sandblaster

Mixing in the **Mapesoil 100** with a plough

Above. The Silvio Piola Stadium in Novara (Italy).

1. On-site preparation of the soil: the preliminary operation consists of removing the layer of topsoil, especially with old fields in natural grass or clay tennis courts where there is vegetation or organic material to be removed from the surface. The soil is then broken up and the material to be stabilised is exposed.

2. Spreading of MAPESOIL 100: the powdered product is directly spread in an even layer over the surface of the soil and levelled off, such as with a top dresser;

3 and **4.** Mixing and wetting MAPESOIL 100: the powder is then mixed into the soil to the design depth and wetted to reach the OMC point (Optimum Moisture Content, to be determined with laboratory tests);

5. Levelling and shaping: the homogenous mixture of soil, water and MAPESOIL 100 is shaped and levelled off to form the design height and slope using a laser-controlled grader.

6. Compacting: the mix prepared as described above is then compacted by repeatedly going over the surface with a roller (minimum weight 3 tons);

7. Curing: to optimise the curing conditions of the substrate, the spread of MAPESOIL 100 is cured by spraying water on the surface for the first 24 hours after application.

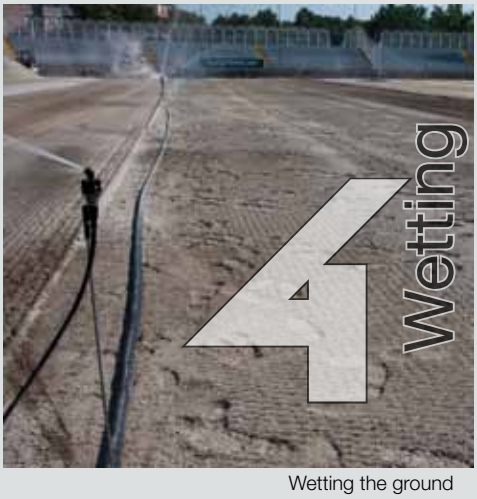
By using MAPESOIL 100, a thinner treatment thickness is involved for achieving the same level of performance than with traditional lime or cementitious binders. Also, thanks to the lower amount of aggregates required, sub-bases containing MAPESOIL 100 helps to considerably reduce the amount of time required to prepare playing surfaces.

The horizontal drainage system using MAPESOIL 100 has been developed and perfected after more than three years of research work together with C.I.S.E.A., and in 2011 was approved for "professional" fields by the Italian Amateur Football Association.

This system may now be used to build fields for games being played from the professional Italian football league. MAPESOIL 100 has become part of the range of products developed by Mapei research for installers of synthetic turf for professional use, and is a valid contribution to the high quality of new playing fields and pitches. The collaboration between the leading companies in the production of synthetic turf has also led to the technical and performance assessment of grass-adhesive systems and the development of ULTRABOND TURF PU 1K, a one-component, ready-to-use, moisture curing polyurethane adhesive which is easy to apply, even in particularly cold weather. And with the help of the sand manufacturer Va.Ga. Srl, a subsidiary of the Mapei Group, it is now also possible to complete synthetic turf sports fields by using VG002 silica sand.

Mapei's all-Italian technology and know-how of synthetic turf playing fields with horizontal drainage systems has also created a lot of interest with other nations' sports federations, and they are currently assessing the possibility of adapting this solution to their specific playing requirements.

Angelo Nobili and Elisa Portigliatti.
Products for sport facilities, Mapei S.p.A.



Wetting the ground

Levelling off

Compacting

DOMOTEX asia CHINAFLOOR

The most important flooring trade fair in Asia was held in Shanghai

Domotex Asia/Chinafloor 2012 was held in Shanghai from 27th-29th March. This is the most important international event in the flooring industry in Asia and the Pacific region, an offspring of the famous Domotex trade fair in Hanover (Germany). This year was the 14th edition of Domotex Asia/Chinafloor: it has been held regularly since 1999 at the Shanghai New International Expo. Over 1110 exhibitors from 36 countries displayed the latest innovations and trends in the industry to almost 40,000 visitors from 120 nations over an area of 120,000 m^2 inside 11 halls.

The event provided people in the industry (real-estate agencies, architects, designers, engineers and construction companies) with the chance to meet together and exchange ideas. David Zhong, the President of VNU Exhibitions Asia, co-organiser of the event in conjunction with Deutsche Messe and the Chinese parquet floors manufacturer Chinafloors, stated that, "It provides the opportunity to create relations and dialogue in the building industry and generate effective synergies for everybody's benefit".

An Encouraging Scenario

The excellent outcome of the trade fair is partly due to the encouraging economic situation in China, whose GNP rose by 9.2% in 2011 and is expected to grow at an annual rate of 7.5% over the next five years. Growth which has been going on for over 20 years: indeed, the nation's GNP has increased annually by approximately 9.9% since 1978, so much so that everybody talks about the "Chinese miracle".

The building industry in particular has been expanding considerably for years and also promises well for the future. Investments in building projects have increased by 14.2% during the first quarter of 2012 alone, after rising by 22% in 2011 compared to the previous year. The local authorities also intend to get Chinese companies in the industry to focus greater attention on aspects concerning regulation, eco-sustainability and technological innovation.

According to market research carried out by the consultancy company McKinsey Global Institute, the population of Chinese cities will rise to over 926 million in 2025. In order to deal with the nation's booming urbanisation, between 1600-1900 million m^2 of flooring and 5 million m^2 of buildings will be required.

This aspect was also underlined by David Zhong at Domotex Shanghai, an exhibition offering companies in the industry with "the chance to study new markets and possible partnerships.

China is transforming from being the world's leading flooring manufacturer to its greatest consumer, and this will provide real opportunities for manufacturers

and the world's entire building industry".
Indeed, it is worth pointing out that the Chinese government intends to shift its focus from exports to domestic consumption, something which will make China a particularly attractive market, especially for high-quality products. This opinion is clearly shared, for instance, by the Italian Prime Minister, Mario Monti, who travelled to China on an official visit on 30th March and stayed until 2nd April. During his stay, Monti met the Chinese Prime Minister, Wen Jiabao, and the President of the CIC (China Investment Corporation), Lou Jiwei, and he also took part in the economic forum "Boao Forum for Asia". The main aim of Monti's mission was to attract new Chinese investments in Italy, increasing the 4% of Italian stock that Beijing already has in its portfolio and setting up new projects involving Chinese financial involvement in Italian enterprises.

In 2010 Italy's exports to China were over 10 billion Euros, 16.2% more than in 2010. It is obvious that, in this kind of situation, the world flooring industry and Italian companies in particular are bound to look to China as a land of great opportunities, particularly after witnessing the decline in traditional markets, such as America, in 2010.
It is no coincidence, therefore, that Mapei, which has always offered cutting-edge technology and can boast lengthy experience in the building industry, has for some time now been investing in and focusing on China. The Group has 3 subsidiaries in China (based in Hong Kong, Shanghai and Guangzhou) and two manufacturing plants (in Shanghai and Guangzhou) and, for a number of years now, it has gained the trust of lots of Chinese operators in the building industry, taking part in the construction of prestigious building projects throughout

Left. Shanghai is one of the world's biggest metropolises and a nerve centre for the Chinese economy. Domotex Asia/Chinafloor 2012 was hosted here and Mapei also has a subsidiary and a manufacturing plant here.
Above. The Mapei stand at Domotex Asia/Chinafloor was visited by lots of Chinese and foreign operators in the industry, particularly from Asian countries. The stand displayed various progress slabs showing the Company's systems for installing textile, resilient, wooden and synthetic grass floors.

TWO PLANTS AND THREE SUBSIDIARIERS FOR A FAST-GROWING MARKET

Above. Two Mapei manufacturing plants are located in China, in Shanghai and Guangzhou, where the Group has two subsidiaries: Mapei Construction Materials (Shanghai) Co. Ltd. and Mapei Construction Materials (Guangzhou) Co. Ltd.
Above, right. Mapei products for installing ceramics were also used inside the futuristic Shanghai World Financial Centre, the tallest skyscraper in China and second biggest in the world.

the country (Three Gorges Dam, the Beijing National Olympic Stadium, the Olympic Stadiums in Shanghai, Tianjin and Shenyang, lots of skyscrapers, bridges, viaducts and residential buildings).

Mapei at Domotex Asia/Chinafloor

Domotex Asia/Chinafloor provided Mapei with an important showcase for all the latest trends and technology in the realms of resilient, vinyl, textile and wooden floors, the sector of the flooring industry that is currently growing most rapidly in China. Lots of the events organised during the trade fair (conferences, workshops, forums) were in fact devoted to this kind of flooring.

Mapei, which for decades now has been providing innovative solutions for laying resilient, textile and wooden floors, could not afford to miss this extremely important event.

The Group's involvement in Domotex Asia/Chinafloor came through its two subsidiaries companies Mapei Construction Materials (Shanghai) Co. Ltd. and Mapei Construction Materials (Guangzhou) Co. Ltd., with a stand devoted to installation systems for these materials.

As well as commemorating the Company's 75th anniversary, its global operations, constant commitment to the environment and considerable investment in Research & Development, the trade fair was also used to focus on the various Mapei systems of products for the perfect installation of rubber, synthetic grass, parquet, PVC, linoleum, cementitious and resin floors, starting with the preparation of the substrate right through to the finishing of surfaces.

The systems were illustrated by means of custom-designed technical data sheets, folders and brochures, as well as progress slabs and panels clearly outlining the various components of each system.

WOMEN HOCKEY STADIUM IN ERDOS

Synthetic grass laid in Mongolia by one of the Mapei Group's Chinese subsidiaries

Erdos is a perfecture-level city and one of the twelve major subdivisions of Inner Mongolia, China. Located in the southwest of Inner Mongolia, the city is encircled by the Yellow River in the north, west and east. It is one of the main economic centers of the region. The city has a population of 1.6 million inhabitants and enjoys typical temperate continental climate with clear four seasons and abundant sunshine, while rainfall is infrequent.
The favorable nature and climate make it a good destination that was chosen by the Chinese Government as an important training base for all different kinds of outdoor sports. Hockey is one of the main sports to be promoted actively in recent years. Starting from year 2002, the China Women Hockey team has been performing well in many different competitions, even defeang the world-ranked Argentina team to win the silver award in the Beijing Olympic Games 2008.
To give the China hockey teams a proper training environment and to provide qualified courts for future competition use in China, the Chinese Government invested billions between 2009 and 2010 to build training and competition courts in Erdos.
Both courts follow the international standard size of 91.4m x 55m and are covered by high-quality artificial grass supplied by one local famous brand (Tai Shan Synthetic Grass Co., Ltd.)
Mapei's adhesive ULTRABOND TURF PU 2K was chosen to ensure a good adhesion of the jointing strips and prevent damage caused by the vigorous games, ULTRABOND TURF PU 2K is a two-component, solvent and water-free polyurethane adhesive for bonding jointing strips between synthetic grass panels. The bonding and mechanical strengths of ULTRABOND TURF PU 2K performed the best amongst all competing brands.
Due to the good performance of the Mapei product for the application of the first training court in October 2009, Tai Shan agreed to promote ULTRABOND TURF PU 2K for the application of its higher-quality synthetic grass.
Hence, this project reference has opened up a prosperous business opportunity for Mapei in the field of sports facilities construction.

TECHNICAL DATA

Training and Competition Pitches, Women Hockey Stadium, Erdos, Inner Mongolia (People's Republic of China)

Period of Construction: Early 2009 - mid 2010
Period of the Mapei Intervention: October, 2009- June, 2010
Intervention by Mapei: supplying adhesive for bonding synthetic grass jointing strips
Client: General Administration of Sport of China
Contractor: China Sports Facility Construction Co., Ltd
Laying Company: Taishan Synthetic Grass Company Ltd
Laid Materials: synthetic grass by Taishan Synthetic Grass Company Ltd
Mapei Coordinator: Brian Li, Mapei Construction Materials (Guangzhou) Co. Ltd (People's Republic of China)

MAPEI PRODUCTS
Laying synthetic grass: Ultrabond Turf PU 2K
For further information on Mapei products see www. mapei.com.

MEF - MUSEO CASA ENZO FERRARI

A museum dedicated to one of the most famous Italians in the world was inaugurated in Modena

On Saturday the 10th of March Modena (central Italy) witnessed a memorable event, with the city invaded by hoards of visitors. An enormous crowd gathered to celebrate the unshakeable marriage between Modena and the man Enzo Ferrari, a racing driver, creator of fine automobiles and unforgettable personality of the 20th century. The occasion was the inauguration of the MEF (Museo Casa Enzo Ferrari, or Enzo Ferrari Birthplace Museum), the museum complex dedicated to Enzo Ferrari built right in the same area of the house where he was born in 1898, set against a backdrop of the "Le origini del mito" (Origins of a Legend) exhibition. The message on the façade of the home and symbol of Enzo Ferrari, still standing right next to a new imposing yellow "bonnet", serves as a reminder that this is the very spot where his father, Alfredo, also had his workshop. The main house and the workshop have been well conserved and are joined to the new, futuristic building: shaped like the bonnet of a car and yellow like the colour which is a symbol of the city of Modena, the same yellow as chosen by Enzo Ferrari as a background for the prancing horse emblem of the company which carries his name.

The new museum complex has been made possible thanks also to technical sponsorship from Mapei, supplier of products, technologically-advanced solutions and constant technical assistance on-site. This is the story of the birth of a museum – open 363 days per year – dedicated to the story of a legend known all over the world. The history of motor racing is told through iconic personalities, places and competitions: from the Aerautodromo circuit in Modena to the Mille Miglia endurance race; from Scaglietti, Fantuzzi and Stanguellini to Maserati, Pagani and De Tomaso, right up to Alfa Romeo. All the local dignitaries were at the inauguration, along with the Italian Minister of Tourism and Sport Piero Gnudi, Enzo Ferrari's son Piero Ferrari, the Manager of Brand Promotion at Fiat Automobiles Lapo Elkan and all the main people who have played a part in turning an idea into reality after 9-years of creation, development and expectation.

Amongst the most important guests, the Mayor of Modena Giorgio Pighi and the President of the MEF Foundation Mauro Tedes-

MODENA, 10TH MARCH 2012

FONDAZIONE CASA NATALE
ENZO FERRARI

MUSEO CASA ENZO FERRARI
MODENA

THE STORY OF A MAN AND A SYMBOL

The inside of the house that witnessed the birth of Enzo Ferrari is characterised by a multi-media presentation narrating his story through images, hitherto unseen films and priceless mementoes of his life. There are also objects, documents, photographs and display screens, like the pages of a book, telling the life story of this legendary car constructor's life.

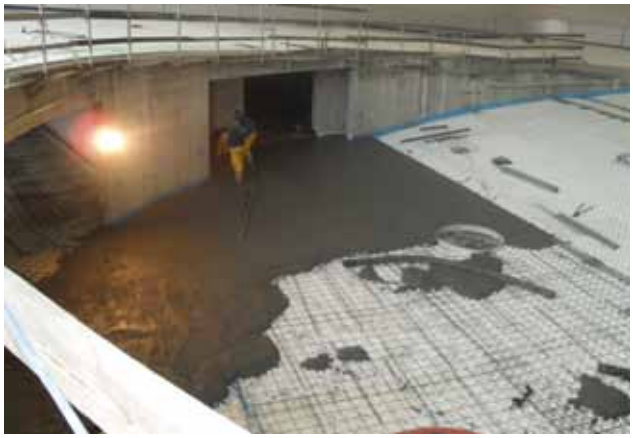
chini, who underlined how "The museum is dedicated to the life of a personality who has helped make Italian culture famous all around the world". And alongside the President, the contribution of three women in particular has been essential: Francesca Federzoni, who oversaw their activities, Maria Cristina Manfredini, President of the Museum Management Authority, and Adriana Zini, Secretary General of the MEF Foundation and Museum.

"I sincerely hope that this museum represents the story behind my father, but above all the vision of a man", was the message from Piero Ferrari just a few minutes before the tape was cut amidst thunderous applause.

"My father founded the team Scuderia Ferrari in 1929, when there was a crisis which is still remembered today, and his life is a demonstration of how, if you are driven by passion and determination, you can achieve great results. My father made it. He was a man who always looked ahead and never dwelled on his mistakes or even on his victories".

"The Ferrari legend, as well as the legends of Maserati, Lamborghini and Ducati", said Minister Gnudi, "and the fame of the circuits and motorcycling and motor racing champions from the Emilia-Romagna region, have a unique appeal which is perceived in every corner of the globe, and attracts thousands of fans to our country. And Modena", continued Gnudi, "is the historic capital of this land of engines, with the highest concentration of legends from motor sports, and we owe all this to the stubbornness, spirit of initiative and innovative vision of men like Enzo Fer-

Left. Work has been completed in the new exhibition gallery where numerous Mapei products and systems have been used for the industrial-grade resin flooring. MAPEFLOOR FINISH 56 was produced specially for this project in white RAL 9003, with a satin finish to absorb and reflect the colours of the lights.



IN THE SPOTLIGHT

MAPEFLOOR FINISH 56

It is a modified polyurethane, aliphatic coloured finish, with a satin finish, with high resistance to wear and abrasion. Thanks to its special fillers, it provides the surface with a special pearl-effect, making it able to absorb and reflects the colours of the lights. It ensures long-lasting ease of cleaning and is also resistant against plasticizers enclosed in the car's rubber wheels.

rari. The Birthplace Museum dedicated to the Drake (this was Enzo Ferrari's nickname)", concluded the Minister "is a just tribute which Modena offers to an innovative man to whom we Italians owe so much, and who gave so much to the city and to Emilia".
After the blessing by the Archbishop of Modena Antonio Lanfranchi, the notes of the song "Nuvolari" by the Italian singer Lucio Dalla accompanied the long-awaited cutting of the tape and, in a climate of festivity and high emotions, the first visits were under way.

Birthplace and Exhibition Gallery

The complex required an investment of approximately 18 million Euros, and there were a number of founding members and partners for the MEF Foundation, such as the Modena City Council, the Modena Provincial Government, the Modena Chamber of Commerce, Ferrari SpA and ACI (the Italian Automobile Club).
Partners and supporters of the complex included the Italian Ministry of Arts and Cultural Affairs, the Fondazione Cassa di Risparmio di Modena, the Emilia-Romagna Regional Government, the European Union, the Italian banks Banco S. Geminiano e S. Prospero, UniCredit and Banca Popolare dell'Emilia Romagna. Martini Illuminazione and Mapei were sponsors for the lighting and resin flooring respectively in the museum complex. The total surface area of the museum is approximately 5,000 m^2 and, apart from the exhibition area, there is an educational centre with digital documentation, a conference room, a small cinema, a store and a cafeteria on the upper floor. The contemporary architectural

style which characterises the museum was designed by the Future Systems studio from London, headed by Jan Kaplický until 2009. When he suddenly passed away, Andrea Morgante from the Shiro Studio, co-designers of the museum, took over as artistic director and head of interior design. Engineering, project management and site management were all carried out by the company Politecnica. Enzo Ferrari's birthplace was restored to its original state, and the living quarters and workshop, which have extraordinary historical value, are still intact.

The museum complex was constructed with an eye on energy savings and environmental sustainability, designed according to bioclimatic principles and built with cutting-edge materials. The inside of the complex is characterised by its backdrop of multimedia tools, which narrate the life of Enzo Ferrari the man, racing driver and creator of fine automobiles, through images, hitherto unseen films and precious mementoes covering an entire century of history. Visitors to the museum are treated to an absorbing, moving journey through an era of great challenges and a passion for speed, a voyage to discover the legend. The layout of the exhibition area is characterised by white modular furnishings displaying objects, documents, photographs, and display screens, like the pages of a book which tells the life story of this legendary car constructor. The new exhibition gallery has a flexible display layout which represents the history, protagonists, the places and the competitions from the history of Modena motor sports. The cars, the real stars of the show, are displayed on design stands like works of art, and are periodically replaced according to the type of temporary exhibition organised, using renewable exposition methods. The cars are set in framed design displays rich with documentation, objects and audiovisual material about Modena and the world of automobiles. This exhibition container is presented in the form of an elegant space to exhibit stunning automobiles, but also as an ideal place to organise conventions, presentations, and cultural events.

Resin Floorings by Mapei

Mapei was involved in providing the flooring for both areas, along with numerous specialised technicians working directly on site.

For the flooring in the Museum, the installation

Photos below. Various application phases of the Polyglass EVOLIGHT lightweight bituminous membrane. This advanced product, from the Mapei subsidiary company, has been used to waterproof the flat roofs.

IN THE SPOTLIGHT

EVOLIGHT

It is an extremely high-performance prefabricated waterproof plastomeric membranes made from a latest generation REOXTHENE ultralight technology modified distilled bitumen compound and a spunbond polyester nonwoven carrier, reinforced and stabilized with glass strands parallel to the machine direction. The special type of compound - which exceeds previous weight/thickness parameters - and the carrier's very good mechanical properties (excellent elongation qualities, considerable shear resistance) combine to make these membranes suitable for even the most demanding jobs. The special formulation gives unique low temperature flexibility properties (cold flexibility down to -10 °C). The innovative patented technology adopted in the production of these membranes offers an additional guarantee of lasting product quality, stability and lengthy service life.

Below. Inauguration day, with visitors crowding the new exhibition gallery hosting the cars, the highlight of the exhibition displayed like works of art on design stands. The cars may also be replaced from time to time according to the theme of temporary exhibitions.

screed was preliminarily built using TOPCEM PRONTO - ready-to-use, normal-setting, controlled-shrinkage mortar for quick-drying screeds with very low emission level of volatile organic compounds (VOC) - cast around the heating elements, reinforced with 5x5 cm zinc-plated mesh made from 2 mm diameter wire at the mid-point of the screed. The final coating was then applied by spreading on two coats of PRIMER SN with a trowel – with MAPENET 150 glass fibre mesh laid between the two layers – sprinkled with QUARTZ 0.5 while still fresh. The next step was to apply by trowel two coats of MAPEFLOOR I 500 W mixed with MAPECOLOR PASTE (RAL 9003), and then work was completed by using a roller to apply two coats of white (RAL 9003) MAPEFLOOR FINISH 56, produced specially for this project, to give the surface even better resistance to wear and a satin finish which absorbs and reflects the colours of the lights. The industrial flooring in the exhibition gallery was made with MAPECRETE SYSTEM, with white MAPEFLEX PU 45 applied after

priming with PRIMER AS, allowing the size of the expansion joints to be drastically reduced. MAPEFLEX PU 45 was used as an elastic sealant, an ideal product for internal and external expansion and distribution joints in vertical and horizontal surfaces, subject to movements of up to 20% of the width of the joint. The same resin cycle as for the birthplace, described above, was then applied on the substrate to make the flooring.
In the bathrooms area, the coating on the walls was applied using a tried and trusted method.

After trowel-applying a layer of TRIBLOCK P-three-component epoxy-cementitious primer for waterproofing damp substrates, including non-absorbent surfaces - two coats of MAPEFLOOR 500 W mixed with MAPECOLOR PASTE (RAL 9003) were applied with a smooth trowel. After sprinkling the surface with sand, final finishing of the surface was carried out with white (RAL 9003) MAPEFLOOR FINISH 56. Products from a Mapei subsidiary were also used. Lightweight bituminous EVOLIGHT membranes produced by Polyglass served as coverings to waterproof the flat roofs.
Construction of the museum has fulfilled an extremely important socio-cultural project: an appreciation of the extraordinary story of Enzo Ferrari and the Maranello-Modena system (see the photos of the Documentation Centre on the next page, a way of appreciating this important heritage). In fact, along with the Ferrari Museum in Maranello, the new race-track in Marzaglia and the Righini, Panini and Stanguellini Collections, this new structure is an important part of the Motor Valley of Emilia-Romagna Region. And Mapei is proud to have once again played a leading role in a highly-important project, and to have made a significant contribution to the city of Modena and its historical-cultural heritage.
A phrase was to be seen on the new Museum and all over Modena in this period: “If you can dream it, you can do it”. A principle expressed by Enzo Ferrari which offers a far better explanation of the “Italian miracle” than any speech.
The same as Mapei, which for 75 years has been helping to build large and small dreams. Like the one which has just come true, through the Company’s collaboration with the MEF Foundation, to confirm yet again that Mapei is a firm supporter of Italy’s artistic heritage.

In these photos.
The Documentation Centre is located in the exhibition area, and includes an area dedicated to the old archives, several computer-aided work stations and a classroom for educational activities and seminars.

TECHNICAL DATA

Museo Casa Enzo Ferrari, Modena (Italy)
Architectural Design: Future Systems, London; chief designers: Jan Kaplický and Andrea Morgante
Architectural Design Assistants: O. Cremella, D. Trovato, C. Geneste and L. Palti
Client: Modena City Council, Fondazione Casa Natale Enzo Ferrari (President: Mauro Tedeschini, Secretary General: Adriana Zini)
Project Management, Structural and Plant Design, Health & Safety and Site Management: Politecnica, Modena
Site Manager: Fabio Camorani, Politecnica
Structural Works Manager: Fabio Camorani, Politecnica
Executive Manager for Civil Works: Paolo Muratori, Politecnica
Coordination of Specialist Activities: Francesca Federzoni, Politecnica
Mechanical Plant Equipment: Marcello Gusso, Politecnica
Electrical Plant Equipment: Francesco Frassineti, Politecnica
Health & Safety Coordinator: Stefano Simonini, Politecnica
Environmental Design: Fatima Alagna e Renzo Pavignani, Politecnica
Period of Construction: 2009-2012

Period of the Mapei Intervention: 2010-2012
Intervention by Mapei: supplying products for preparing screeds for industrial floors and for building resin floorings, as well as for waterproofing the roofs
Main Contractors: Cons. Cooperative Costruzioni Affidataria Capogruppo: Coop. di Costruzioni – Modena; Costruzioni Generali Due; CMB - Carpi (Italy), Coopsette - Castelnuovo di Sotto (Italy), Impresa Costruzioni Scianti SpA, Modena
Technical Director: Giuseppe Coppi
Technical Assistant: Luca Bergonzini
Site Manager: Loris Golinelli
Technical Assistant: Emilio Nigro
Sub Contractors: Corradini from Rubiera (Italy) for concrete; Prima Pavimenti Srl (Libero Gazzotti) for resin floorings; Malagoli Coperture from Modena, for waterproofing
Mapei Co-ordinators: Carlo Alberto Rossi; for concrete: Fabrizio Maltoni; for waterproofing: Raffaello Seghi and Andrea Melotti; for resin floorings: Andrea Degli Esposti and Piercarlo Rocca, Mapei SpA (Italy)

MAPEI PRODUCTS
Preparing the substrates: Mapenet 150, Primer AS, Primer SN, Quartz 0.5, Topcem Pronto, Triblock P
Laying resin floorings: Mapefloor Finish 56, Mapefloor I 500 W, Mapecolor Paste, Mapeflex PU 45.

For further information see www.mapei.com
Waterproofing the roofs: Evolight (a product by Polyglass). For further information see www.polyglass.com

A NINE-YEAR JOURNEY REWARDED WITH JOY AND CELEBRATION

"Our group was stronger than the scepticism and the crisis"

Mauro Tedeschini. President of the Museo Casa Enzo Ferrari Foundation.

We've done it at last, but it hasn't been easy. After a tiring journey lasting nine long years, the time for joy and celebration has arrived with the Casa Museo Enzo Ferrari finally being opened to the public. Let's be honest, it hasn't been an easy journey because we could sense the scepticism around us. And because the crisis, the type with a capital C which started in 2008 and is still having a heavy impact on us today, has been a dreadful complication for us at the Foundation, faced with the task of finding the funds for this wonderful but costly project. But if we came through at the end, it is only thanks to a tight group of people pulling in the same direction, shrugging off the gossip and malice which in a small city like ours is all too common. And so I now find myself reflecting on the last 108 months since the Foundation was created: the first phone call from the then Mayor of Modena Giuliano Barbolini and Antonio Ghini, right-hand man of Luca di Montezemolo in Ferrari, asking me to run the Foundation. At the time I was editor of the Italian car magazine *Quattroruote*, and so to them it seemed only natural that I should be the leader for this adventure. And I accepted immediately, but on one condition: that I would do it completely free of charge, with no fees or payment of expenses of any kind. Just for the sheer pleasure of doing something for my city. First there was the headache of getting planning permission on the land and the competition to find the right architect to entrust the design work for the new museum. It seems like only yesterday, the meeting between the competition judges on the last floor of the Maserati headquarters in Modena. I remember the wise words from the great Sergio Pininfarina who guided us in selecting the right project, the one designed by Jan Kaplicky and the Future System studio. And I remember when, with a smile, he told us about his visits to the Ferrari offices in Modena, and how it was absolutely forbidden to even mention the name of their historic rival, Maserati: "They just called them 'the ones down the road', referring to those at the end of Via Ciro Menotti in Modena, just past the flyover". And he would let out a hearty laugh, just thinking about the good times from the past. Then the site was broken and slowly, step by step, we saw the growth of the enormous yellow bonnet next to the house where the Drake was born in 1898, along with the annex which was his father Alfredo's workshop. I remember the discussions with Kaplický, the visit to London to the former factory where he had created his grand studio in the Notting Hill area. Then, one freezing January morning three years ago, Jan Kaplicky's closest collaborator Andrea Morgante phoned me in tears, to tell me that Jan had passed away suddenly in Prague, on the very day that his beautiful daughter had been born. And for me it will obviously be a great joy to see his loved ones, with the Mayor of Prague, at the inauguration party. And so this brings us back to today, to hand over this complex to the people of Modena, a complex which is not just a temple to the memory of motor racing like that pearl of a museum dedicated to the Ferrari cars in Maranello. It is also a splendid example of modern architecture entrusted to a city which needs new symbols, and joins those great symbols we have inherited from the past. A temple which must testify to the new generations the capacity and ability of a handful of men who have carried the name of Modena all around the world: Enzo Ferrari first of all of course, but also the people from Maserati, De Tomaso, Stanguellini, Scaglietti and today Pagani. People who set off on their journey dreaming about speed and victories in car racing, and ended up founding companies which now give work to thousands of highly qualified people. Modena must be proud of all this, and must use it as a driving force to promote all its products and give new impetus to its ability of attracting tourists from all over the world. The opening of the Museum means work is just starting, not finishing. And now we must see what the market thinks, which is also going to be hard in tough times such as these. But I believe that, for a day at least, we can take a time-out to celebrate. And to thank so many people. Such as Piero Ferrari, from day one Honorary President of the Foundation, whose presence has always been felt. Or such as Adriana Zini, Maja Argenziano and Patrizia Benati, the tireless ladies-only staff, flanked by Giovanni Perfetti who provided all his precious experience. Such as all the advisers who have taken turns over the last nine years, and all without being paid a penny, so all resources could be invested in the site. And then them, the technicians and workers who have worked so tirelessly with great skill and competence. And the Modena City Council, the Provincial and Regional Governments, the Fondazione Cassa di Risparmio, the Chamber of Commerce and ACI. Who knows how many people I have left out, and I must apologise. But I must not leave out my wife, who was happy for me to deny her of part of our (too little) spare time to dedicate it to this wonderful adventure.

This article, written by Mauro Tedeschini, has been taken from the special edition of *Il Resto del Carlino* newspaper published on the 10th of March 2012, whom we kindly thank.

© Photo by Alessandro Fiocchi

MAPEI 75 YEARS OF EXCELLENCE 1937 • 2012

For 75 years, Mapei has been at the top with their quality chemical products for the building Industry, products for a better job on both large and small sites. Their commitment became reality with 60 production facilities in the 5 continents, 18 main Research & Development centres with more than 900 researchers, a range of more than 1,400 products and more than 200 new products every year. These are the "figures" which make Mapei the leading international Group of chemical products for the building industry. **Discover the world of Mapei: www.mapei.com**

MAPEI®

ADHESIVES · SEALANTS · CHEMICAL PRODUCTS FOR BUILDING