

AMBITIONS

A DIVE INTO SIKA'S WORLD



LIGHT

Replications of the instinctive bond between humans and other living systems in interior environments become a mere pleasure.

5

WORLD VIEWS

Thrive with us into amazing Morocco situated on the extreme northwestern corner of Africa.

8

SUN

It was a job in the dark and rain, but nonetheless it took only 60 days to complete a reinstallation of a solar roof of 8.042 m².

18

EARTH

The runway 14/32 of Zurich Airport will be rehabilitated so that it can continue bringing passengers back to the ground safely.

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AMBITIONS ISSUE #14

BUILDING TRUST





DIVERSITY.

Leaving aside the complex techniques that go into making chemical products, let us take a look at the diverse creations which they are used to make. From visibly large constructions down to the finest of building details, outcomes vary, sometimes seeming like visual wonders, sometimes like mammoth life support systems. In some cases, you might feel as though you are swimming through architectural refinements and sophistication. But in other instances, you will see that even the superficially simplest of creations can enhance the quality of life to give people a more secure hold.

The Olkuroto Bridge in Kenya is a case in point. Before the bridge was built, villagers were totally at the mercy of the weather, cut off during the rainy season and connected to the other villages during dry spells. People are now able to trade, meet, barter – their lives have become much easier with a link to the other side of the river.

Moving from the small to the huge: What if we look at creations made with the help of construction chemicals not just in a small village, but in an entire country? Aspiring Morocco is profiting greatly from an improved infrastructure for its people. New local and long-distance traffic routes, shopping malls, and better connectivity between different areas of everyday life increase both productivity and well-being. This is what building diversity with construction chemicals can be about. The meaning of the ensuing creations goes beyond any narrow description. And that's the most fascinating aspect of all.

Yours sincerely,



ASTRID SCHNEIDER
Chief editor



ASTRID SCHNEIDER
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It has been fantastic, a great experience sharing the boat's adventures with the people of Tara Expeditions. More than just a scientific mission.



LUIS CARLOS GUTIERREZ
Marketing & Communication
Manager, Sika Spain

It is a real pleasure for Sika Spain to be a company of reference for young and renowned professionals. ARN Architects design spectacular works like "Paul Chemicals".



CAMILLE SPINOSA
Marketing & Communication
Manager, Sika Maroc

Adopted for more than 3 years in the Sika family, I applied much energy and pleasure to use my experience to manage the Marketing and Communications Department.



JENNY PERELLO
Marketing Manager
Sika Australia

Perth Arena is just one of the proud examples of our dedication in the construction business. We are pleased to have been involved in such architecturally challenging project.

AMBITIONS

#14 2013



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MAXIMIZING NATURAL LIGHT

Given the nature of today's work processes, how can the workplace better support the employee and the company's image? How can the workplace support all of the different activities involved with knowledge work – things like collaboration, creativity, innovation, deep thinking and mentorship? The following example shows just how.

TEXT: JOSE AMOROS, LUIS RUBIATO, PATRICIA NAVARRO E.G., LUIS CARLOS GUTIERREZ
PHOTO: DAVID FRUTOS

- > The project for the construction of a new corporate building was an innovative one. Comprising two floors and a basement, the structure contains the headquarters and two small laboratories of Chemical Paule, a manufacturer of finishing products for footwear. The building is in a purely industrial urban location, situated in a polygon-shaped site bordering on a natural environment. The remit was to create an entire interior with natural and controlled lighting to minimize the visual impact on the inside space.

The compactness and the dark-coated

perforated skin contrast with the existing neutral background, which was interspersed with a series of "voids" allowing the patios to organize the interior space and serve as a visual filter and source of light. The outer skin of perforated corrugated sheet steel is painted dark, producing a sense of volume and continuing on into the main facade to evoke accessibility. This skin is designed to create an image of security from the outside, while the fact it is 50% covered with drill holes permits a full view from the inside.

The sheet disappears into the patios, ex-

posing the underlying corporate green, and lending a partial view of an interior space that emits a bright white contrasting against its envelope. The courtyards are paved with artificial grass reinforcing the corporate color, while striving to offset the roundness and coldness of the industrial environment on which it has been implanted, reinforcing the inner world of shades conceived to create peaceful work areas.

The natural slope illuminates the basement in the southeast corner that houses a dining area for workers. In the main en-

> trance to the estate, the building opens with a horizontal tier downstairs, extending along a wall that provides support for the access steps made from naturally occurring asphalt, creating an approach ramp from the works store. The empty spaces in the corner of the access area allow a fragmented view towards the mountains, as well as causing a shift in the facade, which facilitates access control into the building from the reception area.

natural light, which is diffused to work areas through the courtyards, while the perforated facade acts as a filter to direct sunlight. All artificial lighting is designed so as to have an indirect impact on general areas, while lighting unit elements are used in the work zones.

The use of white throughout the interior enhances the brightness. Plane flooring in bright white resin extends from the laboratory to the entire building, creating a mirror surface that unifies all work-

need for high chemical resistance.

People generally prefer to be surrounded by nature, which provides endless sources of variety, sensory and otherwise. It is crucial to replicate the instinctive bond between humans and other living systems in interior environments. Daylight and changing sensory impressions enhance a feeling of well-being. And having enough light during the day is one of the keys to feeling comfortable at work.



On the ground floor, the project acquires a surface that looks more prominent. Seen from the entrance, the laboratories project a transparent image of operations. The main staircase is located in the central area and positioned against a white wall that leads out of the basement and progresses vertically across the space, serving as a cabinet area.

The rear facade runs flush into a wall that houses equipped laboratory facilities on the ground floor and a storage area on the top floor, thus limiting the direct view onto the wall of the adjoining buildings.

The use of light is another key element of the project. The aim is to maximize

spaces. At night, the building acts as a flashlight through the courtyards, which are lit up and “empower” the green corporate light.

Melpin was commissioned to install the floors in the new building. The specification was bright flooring without joints in order to give the impression of continuous concrete, but without the risk of cracking. A further key requirement was delicacy of finish. The company opted to apply Sikafloor 156 primer and the polyurethane resin Sikafloor 325 in all work areas in general, except in the offices. The high-performance epoxy resin Sikafloor 381 was chosen for the R&D&I labs and the sample laboratory because of the



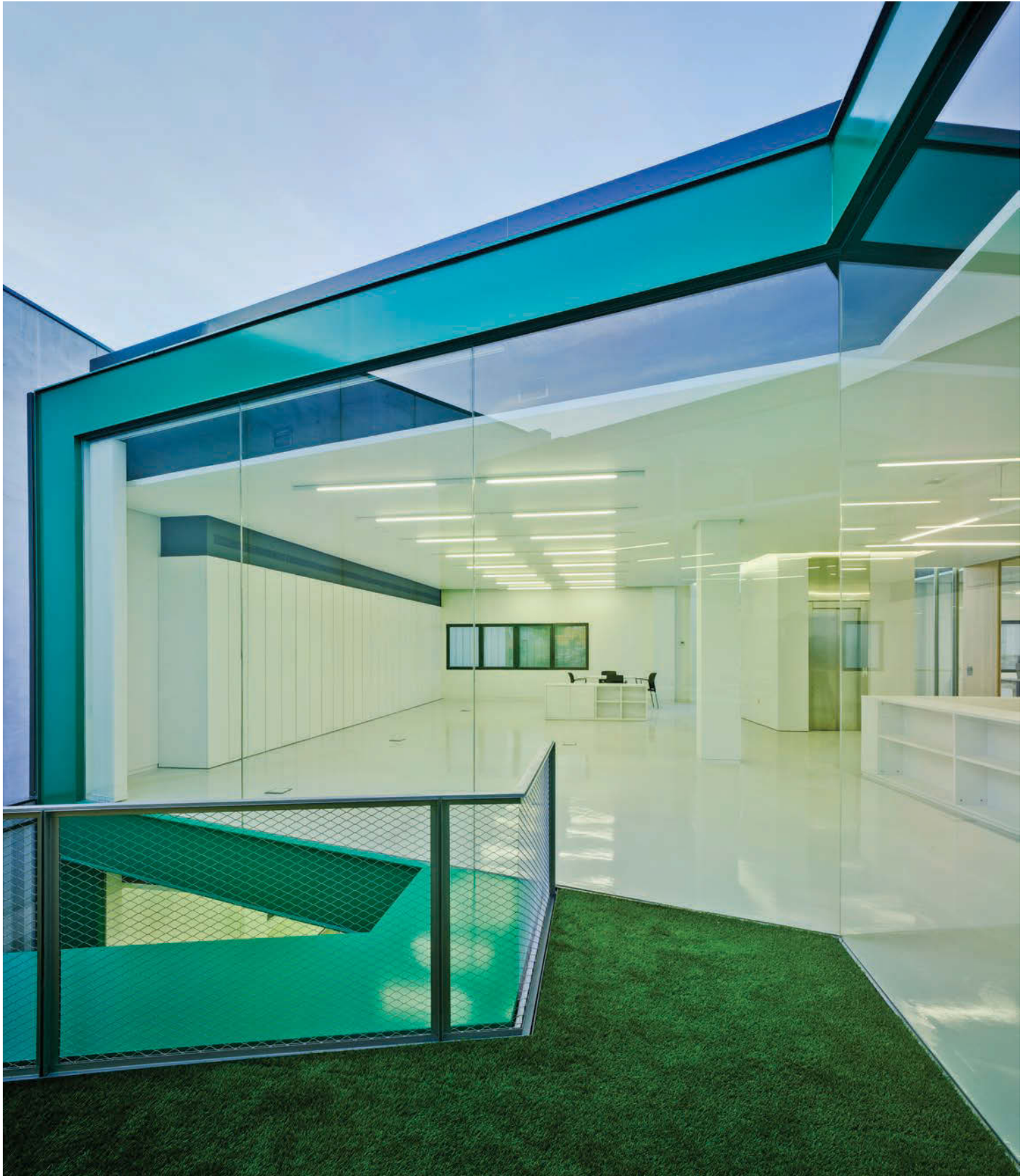
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WHAT ABOUT MOROCCO?

Morocco is in many ways a country apart. It is situated on the extreme northwestern corner of Africa and is bordered by Mauritania to the south and Algeria to the east. The country is ruled by King Mohammed VI, who appears to be leading Morocco toward both long-term stability and a greater degree of economic prosperity. The political climate, a greater focus on human rights, and economic growth all make the Moroccan model stand out.

TEXT: CAMILLE SPINOSA
PHOTO: CAMILLE SPINOSA



THE MOROCCO MALL IS ONE OF THE 5 LARGEST MALLS IN THE WORLD.

> Sika Maroc has been in business for 33 years, driven forward by General Manager Claude Juillard for the past 16 of these. The main facility is based in Casablanca, comprising a showroom and two production plants. The company also has an office in Tangier. Sika Maroc with its 109 fully committed employees is expecting to see production rise to 20,000 tons by the end of the year. The smell of the Atlantic Ocean was in the air when we met Claude Juillard, General Manager, and Marouane Zohry, Director of Concrete & Waterproofing, in Casablanca.

The whole world knows Casablanca – at the very latest when they get to see Humphrey Bogart look into Ingrid Bergman's eyes. The city has changed a lot over the last few decades and is now the largest in Morocco. Is there anything you miss from the olden days that you would like to bring back?

When the French seized Casablanca in the early 1900s, they turned the historic Moroccan port into a classic of colonial architecture that was to be immortalized in the 1942 namesake film. In the decades since the release of "Casablanca", real estate development and property speculation have reshaped the city into one bearing little resemblance to its movie depiction, and preservationists are increasingly fretting about what will become of the crumbling French colonial facades, neo-Moorish details and Art Deco hotels. Indeed in this fast moving economic environment, real estate developers are often looking to buy historic properties, tear them down and build more modern apartment buildings. The present population of Casablanca is estimated at a little over 3,299,400, making it the largest city in Morocco. Thanks to the tramway and the entire moderniza-

tion process, the city is entering a new phase. That being said, urbanization is tending to be more and more authentic and protective of the old style while still embracing the modern way of life. Casablanca is one of Africa's four largest cities. The rapid commercial progress witnessed by Casablanca, especially the growth of its port, has established it as the economic capital of Morocco. We cannot fail to mention the beautiful Hassan II Mosque, one of the biggest in the world. Over 6000 traditional Moroccan artisans worked on this phenomenal building over the course of its construction. The project cost more than half a billion dollars and was paid for largely by public subscription. As Morocco's principal center for recreation, Casablanca boasts a number of pleasant beaches, parks, and attractive promenades along the seafront. Casablanca is a sprawling, vibrant metropolis which is resolutely turned toward the future.

Is it true that Casablanca derived its name from the many white houses, just as Marrakech has numerous red houses? Or is there something else behind the name?

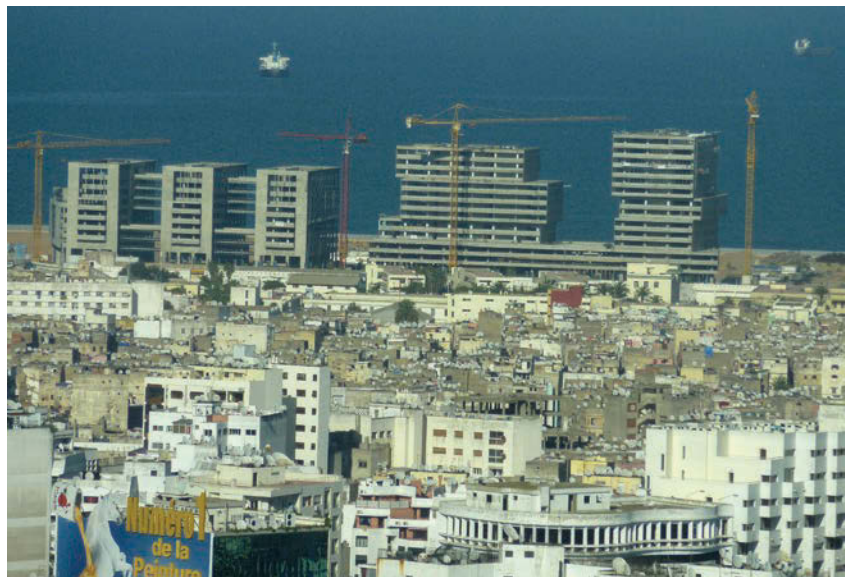
An Amazigh (Berber) village called Anfa stood on the present-day site in the 12th century; it became a pirates' base for attacking Christian ships and was destroyed by the Portuguese in 1468. The Portuguese returned to the area in 1515 and built a new town called Casa Branca ("White House"). It was abandoned in 1755 after a devastating earthquake, but the 'Alawī sultan Sīdī Muhammad ibn 'Abd Allāh rebuilt the town in the late 18th century. Spanish merchants were the ones who named it Casablanca, and other European traders began to settle there.

Speaking of business, Morocco and the surrounding Maghreb States offer a very versatile and challenging environment for multinational companies. Where do you see the opportunities?

Morocco has witnessed an economic boom, with the construction sector playing a major role in this dynamic evolution. The government consistently invested in major projects and supported initiatives to establish several free zones in Morocco. Instituted by law in 1994, export processing zones are designated authorized areas within the customs territory that are exempted from customs regulations, foreign trade and exchange control, all industrial and commercial export levies as well as associated service levies.

The existence of these zones is a real chance for Sika Maroc since it stimulates the construction of infrastructure for businesses located here. The country has many strengths that suggest that growth will not be restricted to the coming years only. Indeed, Morocco has a stable political environment that enables implementation of a real economic strategy over the long term. Worthy of mention in this regard is the National Pact for Industrial Emergence, the goal of which is the revitalization of certain sectors of industry. In the face of the challenges of an evolving global economy, the pact aims to build a strong industrial sector and create a virtuous circle of growth. The state and the private sector have sealed this covenant by signing a contract program covering the period 2009-2015. By consolidating their mutual commitments into one document, partners bring to investors the necessary visibility on the changes of the future Moroccan industry. The emergence pact sets specific target in terms of contribution

THE NEXT CHALLENGE AHEAD FOR MOROCCO IS TO ENSURE A TRANSITION TO A MORE STANDARDIZED AND REGULATED MARKET.





The teams of Sales and Administration of Sika Morocco.

- > to GDP, export and employment for six sectors considered to have high growth potential: aeronautics, offshoring, food, textiles, electronics and automotive.

The slowdown in activity in Europe, Morocco's chief economic partner, and below-average agricultural production resulted in a distinct slowdown in the growth of Morocco's economy. What is the outlook in your opinion?

According to the Haut Commissariat au Plan, the Moroccan GDP grew 4.30 per cent year-on-year in the second quarter of 2013. However, Morocco will have to deal with different challenges going forward.

There is not much evidence of modernization and refurbishment work being carried out on buildings. In fact, the construction sector in Morocco is largely dominated by small poorly regulated sites. The players in Morocco's construc-

tion market are, however, still relatively heterogeneous. In the majority of cases, the mix of workers and methods testify to differing levels of technological competence. Parallel market and unscrupulous practices are commonplace.

In this challenging environment, Sika Maroc has strengthened its quality commitments, its enterprise value and its unwavering ethical standards to remain the leader in this market. The person-based relationship established with customers and partners, small retailers and hardware stores, craftsmen and small businesses is the cornerstone of this success. The next challenge ahead for Morocco is to ensure a transition to a more standardized and regulated market. Sika Maroc is working every day in this direction.

How about the construction market? Where does Morocco need Sika?

Beyond public investment, the construction sector attracts a large number of private investors. In 2011, foreign direct investment (FDI) to the construction industry accounted for 32% of total FDI in Morocco. The construction industry is still the biggest hiring sector in the kingdom in spite of the difficulties it is currently facing. Large construction projects are abundant: the highway network grew from 100 km in 2000 to 1,500 km in 2012; the Tanger-Casablanca high-speed rail (HSR) link, scheduled to start operating in 2015, will be the first of its kind in Africa; Tanger-Med (more than 4 million containers in 2013, 7 million expected in 2017) is the major African harbor in terms of transshipment. In addition, integrated industrial platforms and technology centers are still under development. The OCP (the Moroccan global leader in phosphates extraction and transformation)



The famous Marina Casablanca project, the up-and-coming multi-purpose center of the city of Casablanca.



The Tanger-Med project.



CLAUDE JUILLARD
General Manager
Sika Maroc



MAROUANE ZOHRY
Director of Concrete & Water-
proofing, Sika Maroc

has also launched a huge investment program. The tourist and housing sectors are likewise contributing to the growth. Notable development projects are underway in the hydraulic infrastructure (including a dam and hydro power station) and energy sectors (new thermal power plant in Safi for instance), all of which spell good prospects for our industry and other construction markets.

However, Morocco's years as an "open site" seem to be over. Cement consumption has plummeted since 2012. In late August 2013, the cumulative sales of cement continued their downward trend with a decline of 10.16% compared to the same period last year. This sharp decrease is due to the economic recession in Europe and to the political climate in the Maghreb countries, which is slowing down the FDI.

Previously, the main challenge facing Sika Maroc was to stay competitive in a

local market where the majority of competitors were offering much cheaper products, but at much lower quality. In recent years, construction strategy in Morocco has moved more towards the development of infrastructure and buildings in collaboration with global actors. Among the different governmental construction projects in place is the "Cities Without Slums" program, which promotes the construction of homes of lower quality. The Finance Act 2013 also represents genuine opportunities since it provides a series of incentives to encourage the construction of new housing for the middle classes.

In addition, the government is currently working on a new draft construction code including increased quality control of recycled materials. This is a new direction that is certain to strengthen Sika's position in Morocco's construction market. The automotive and bus industry is growing and the distribution network

for our industry's specialized products is undergoing a major modernization program. The outlook is encouraging for the industrial market, the double glazing industry is expanding and promises a bright future, as do the sustainable energy plants scheduled for construction in southern Morocco.

Moreover, Sika Maroc's commitment to developing its integrated management system is a key step in the way forward initiated by Morocco in recent years. Sika Maroc promotes the use of best quality materials and thus encourages the construction of more sustainable, eco-friendly infrastructures. In this context, Sika Maroc provides training to sensitize laboratories and lawmakers to the related problems.

Finally, in terms of social engagement, Sika Maroc employees receive training to help them to improve their professional skills and methods. Between 2011 and

"I AM ONLY TOO PLEASED TO BE ABLE TO WORK IN SUCH A WINNING ENVIRONMENT."

- > 2013, more than 100 employees attended training sessions, representing 88 hours of training per person on average over three years.

Are there any extraordinary Sika projects you would like to tell us about?

Our products are used on several major projects in Morocco and we want to highlight two of the most important:

1. The Tanger-Med project, one of the largest port complexes in the Mediterranean basin, is a key project of ours. We dedicated a lot of time and effort to becoming the main supplier for concrete admixtures, release agents, hardeners, mortars and other products. To ensure a better service, we have a new one-man office in Tangier dedicated almost completely to this key account. Our Tangier-based civil engineer specializes in concrete and waterproofing applications. This close customer strategy proved so successful that we plan to repeat it for other key account project management operations in different parts of the country.
2. The Morocco Mall is one of the 5 largest malls in the world. We provided our full range of products from concrete admixtures, through tile adhesives to coating resins for the construction of the 80,000 m² parking facility.
3. Sika Maroc is named supplier for the famous Marina Casablanca project, the up-and-coming multi-purpose center of the city of Casablanca.
4. We are also working on other major projects such as the new port of Jorf Lasfar, new OCP industrial complexes, and the Tangier-Casablanca high-speed rail link.

To where is Sika Maroc going from here?

The next steps are to continue to strengthen our leadership position in the Moroccan chemical building materials and industrial segments by maintaining our policy of research and development of innovative products and solutions, as well as to sharpen our business strategy of proximity through an enhanced regional presence.

Further to the acquisition of Axim Maroc by Sika Maroc in 2012, the main challenge has been to integrate the new team and to develop strong communications between the two entities. We have succeeded to date and now need to transform the trial into a winning shot. In the long term, our goal is to transfer the entire production of concrete products to the fully automated Ain Sebaa factory (former Axim). We have also started the quality certification process for the Ain Sebaa production site, which must be completed by mid-2014.

The Human Resources and Quality departments are also looking into obtaining social compliance certification. This will help us to improve our social policy through the application of guidelines and procedures. We should also like to mention that our main location based in Bouskoura (close to Casablanca) is currently undergoing redevelopment, entailing reorganization of the Poudre production site and extension of the existing plant. The objective behind the new storage zone here, which will raise storage capacity by 70%, is to increase mortar production capability. Last but not least, this construction project (due for completion end-2013) will also enable us to create recreation areas for employees. In 2014, we plan to extend the ad-

ministration offices, which are also in the Bouskoura area. It should also be noted that we aim to attract even more visitors to our website in 2014 through the development of new web marketing tools.

What do you personally wish your country for the future?

Claude Juillard: I personally wish Morocco to keep moving on, to win market share in the global economy and to succeed in maintaining a sensitive balance between competition and social enforcement. We are living in troubled times, and Morocco has not only succeeded in defending its position, it is also becoming a key player, acting as a hub between Africa, above all with Mauritania, and other parts of the world. As General Manager, I am only too pleased to be able to work in such a winning environment.

Marouane Zohry: I am Director of Concrete & Waterproofing, and all purely Moroccan-manufactured products. I hold a degree in civil engineering from a renowned school of engineering in Morocco. I am directly involved in the modernization and development of several infrastructure systems in my country. While this is certainly good for business, it also represents a major step forward for Morocco, and I am proud to be able to contribute to it. For this reason, I really feel part of the effort to build the general environment for my fellow citizens and future generations to live in.



Stealing Mona Lisa. The winner foto.

BEING PRESENT IN THE GREATEST WORKS WORLDWIDE

Every year hundreds of advanced students of architecture in Uruguay travel around the world in what will be the ride of their lives. The objective is to get to know major works across all continents and of course have fun!

TEXT: NATALIA DOGLIO
PHOTO: VARIOUS



IN OCTOBER AND NOVEMBER 2013, THE CHALLENGE WILL COME TO SWITZERLAND AND THEN TO SPAIN.

- > The trip is funded entirely by the students themselves, through the sale of raffle tickets and diaries in the years preceding the trip. The entire country of Uruguay provides support. From April to December, more than two hundred architecture students tour the five continents. Eight months of travel, discovery and enjoying the great wonders of the world!

This year, Sika Uruguay decided to accompany the students and show them that Sika is present around the world in major projects and technologies. A photo competition was organized at three internationally recognized sites where Sika as well has provided its services:

Louvre Museum in Paris, France
The KKL in Lucerne, Switzerland
ABC Museum in Madrid, Spain

The prize went to the most original and funny picture taken at that architectural work. The aims were to make everyone aware that Sika is present in the world, to show and teach them about the products used, to support them in the journey of their lives and to have fun with the students' imagination.

In July, the students reached Paris, France in groups of 7 to 10 people. Over the course of 48 hours, they had fun at facebook.com/Sika Uruguay promoting the competition and outlining Uruguay's progression. And there was another good reason – the group winner would take away four thousand dollars – a significant sum of money vital to the completion of this magnificent journey of many months.

During the 48 hours after the pictures were posted in Facebook and the winner was announced, the site received more than 430,000 visits, with more than 8,500 likes and 600 comments. Certainly this was a true success for a country with only 1.8 million Facebook users.

In October and November 2013, the challenge will come to Switzerland and then to Spain. No doubt these ladies and gentlemen will continue to give a lot of laughter and of course they will continue getting to know magnificent works which comprise Sika Technology.



EIGHT MONTHS OF TRAVEL, DISCOVERY AND ENJOYING.

Visit at [facebook/Sika Uruguay](https://facebook/SikaUruguay) and you can view several of the photos received as well as the photo of Uruguay Sika officials, which the social network considered the winner.



A ROOF THAT SCORES

Just as a well executed fast break is appreciated in basketball, a quality roofing installation done under a tight deadline is also worthy of admiration.

TEXT: STEPHEN BURKE
PHOTO: STEPHEN BURKE



- > When Progressive Roofing of Phoenix was assigned the task of reroofing the Wells Fargo Arena at Arizona State University in Tempe, they had approximately 60 days to complete the 8082.6 m² installation. And if that wasn't difficult enough, they also had to cut out 1,780

penetrations in the roof for solar panels that were being installed. There were several reasons for such a tight deadline, according to Tom Urich, manufacturer representative for Sika Sarnafil. "There were financial incentives offered by the local utility for sustainable roofs and they were going to expire," Urich explained. "In addition, work couldn't start on the Arena until June, when the local high school graduation ceremonies were over – and the new roof needed to be completed before the fall school term started in August."

In addition to having a short time frame, the Arena roof installation also took place during the hottest – and busiest – time of the year. "Because of the Arizona heat and the events taking place at the Arena, we had to do all the work at night," said Elsley. "It was also during monsoon season here, so we had several delays due to rain." No matter what the weather, the building had to be kept watertight during the entire installation, Elsley pointed out. "They were refinishing the wooden basketball floor at the same time, so we couldn't have any moisture getting into the building," he stated. The 24-person crew also had to be tied off at all times, and deal with trades working on asbestos removal and the solar installation at the same time. "This was one of the most difficult installations I've ever experienced," remarked Emerson Ward, project manager at CORE Construction, Inc., of Phoenix, the Construction Manager at Risk on the project. "It required a lot of collaboration and calculation. Fortunately we had the right roofing system with the right solar array." Another challenge, according to Backus, was access to the roof. "This building is the sports hub of the university, and is also right next door to the stadium," he said. "That meant Progressive Roofing had to coordinate its schedule around traffic issues."

The project began with the tearing off of the existing built-up roof. After it was removed, deck repairs were made, R-30 insulation was installed, ½ inch cover-

board, and the Sika Sarnafil membrane was adhered to the substrate. They then had to deal with the penetrations. "After the new roof was installed Progressive Roofing had to cut 20 inch by 20 inch squares of the roof and insulation, pulling them out as big cubes," Urich explained. "Then the solar posts were installed, and the cubes were reinstalled and flashed." This had to be done 1,780 times, making it "the most difficult installation I have ever seen," Urich said. Fortunately, Sika Sarnafil representatives were able to help with inspecting all the penetrations so that Progressive Roofing could keep to its schedule. "The representatives were great," Elsley stated. "Whenever I had any issues they were there to resolve them quickly." Despite the tight time frame and considerable challenges, the roof was completed "on schedule and under budget," according to Ward. "Progressive Roofing did a great job," he added. "That's why I consider them to be one of the best roofing contractors in the state of Arizona." "Progressive Roofing did exceptional work under the conditions," said Urich. "They never had a leak – even with 1,780 penetrations."

Today the roof is "doing excellently," according to Backus. "There are no leaks and it drains really well." "We get a lot of comments on how great the roof looks, especially with the logo," Elsley added. Sounds like, in the end, this roof was a slam dunk.

TODAY
THE ROOF
IS DOING
EXCELLENTLY.





SAFE GROUND FOR MILLIONS OF PASSENGERS

For 40 years, runway 14/32 has been the landing and departure point for millions of passengers at the Zurich Airport. The foundation of the runway was built in the 1970s, only parts of the surface have been refurbished regularly over the years. After many years of reliable service the runway will now be rehabilitated so that it can continue sending passengers into the air or bringing them back to the ground safely. The refurbishment work on the runway will also be used to modernize the electrical system of the runway lighting which has ensured best views over the last 40 years. A project that challenges planning and time management but also the concrete additives provided by Sika.

TEXT: MELINA MERKLE
PHOTO: MELINA MERKLE

AMBITIONS

Issue 2014 - High Rise



Works are done at multiple trenches at the time. All of them have to be done till 5.30 a.m.

THE WORK AT NIGHT IS PHYSICALLY AND SOCIALLY CHALLENGING.

> **BUSY WHILE IT'S DARK**

The refurbishment of the heavily used runway is a project that takes several years and needs detailed planning. The daily air traffic on runway 14/32 puts strict requisites on the construction work. It can only be conducted during the night between 11.30 p.m. and 5.30 a.m. Till 5.30 a.m. the runway has to be completely cleared, cleaned and must be ready for departures and landings immediately. Overstepping the time would have huge impacts on the air traffic.

Floodlights are helping the construction workers to keep an overview. Outside the lighted area there is almost complete darkness, only the lights of the airport buildings far away are visible. Light reflective clothing, helmets and hearing protection are essential parts of everyone's equipment and even in summer warm clothing is needed as it can get very cold especially during windy nights. The work at night is physically and

socially challenging for construction workers, the project owner and Sika consultants and requires understanding and support from their families and friends.

PREPARATION IS KEY

Already in 2012/2013 the refurbishment work has begun. In regular intervals chambers have been built along the runway to accommodate the electronics for the runway lighting system. Now, further preparation work for the refurbishment of the medial strip is under way. The runway is 60 meters wide and is currently made of concrete. Starting 2014, a 22.5 meter wide medial strip will be refurbished with asphalt. The 18.75 meters on each side of the runway made of concrete will remain.

Trenches are cut out from the concrete in intervals of 20 – 25 meters. Each trench provides space for one to five pipes in which the cables for the new runway lights will be placed. The



Detail work in tough conditions.



A good sense of proportion comes handy for estimating the lean concrete needed.

FOR THE RUNWAY REFURBISHMENT AT ZURICH AIRPORT THE CURING TIME OF THE CONCRETE IS VERY CRUCIAL.

- > lower 20–30 centimeters are filled with lean concrete covering the pipes. The construction workers can estimate surprisingly well how much material they need to fill the trench to the specified height and in no time they distribute and level the concrete. On top of the lean concrete they lay a plastic foil which allows some flexibility between the concrete layers. Above the plastic foil the reinforcing is installed and then filled with rapid-hardening concrete based on SikaCem®-501 S.

THE RIGHT RECIPE

The concrete is delivered by a nearby Holcim concrete plant. It consists of cement, sand, gravel, water and additives. The latter influences properties such as fluidity, curing time or water content. Depending on the intended use, climate, temperature and other criteria the concrete mix is adapted with the appropriate additives.

For the runway refurbishment at Zurich Airport the curing time of the concrete is very crucial. The concrete has to stay fluid long enough in order not to harden between concrete plant and construction site. If it stays fluid too long however, the concrete will not be cured in time for the runway to be ready in the morning. Therefore, SikaCem®-501 S, a cement-based binder, is used for this project.

In the control room of the concrete plant a Holcim employee configures the concrete mix. Accordingly, the ingredients are added to the concrete mixer: Cement, sand and gravel are added through flaps, the binder SikaCem®-501 S is added from the cement silo and mixed to concrete. The thoroughfare for trucks is situated underneath the concrete mixer, making it easy to load the truck and ensuring that it will reach the construction site as quick as possible.

CONCRETE LOGISTICS – TIME IS RUNNING

The drive between the concrete plant and the Zurich Airport only takes about 15 minutes; nevertheless, a transport time of

approximately 30 minutes has to be calculated for the concrete mix due to the security check. It applies for passengers as well as for construction workers and every vehicle that enters the airport ground. As soon as the concrete truck and its driver pass the security check it only takes a couple of minutes on the unlighted, 3.4 km long runway to the place of action.

EXCELLENT TEAMWORK

There is only little time for the construction workers to process the concrete. Thanks to their excellent teamwork including ten people the concrete is filled into the trench, leveled and roughened in record time. To ensure the best quality the concrete is then sprayed with the protective lining Antisol® E-20 which prevents water to volatilize from the concrete too quickly.

Before the concrete is completely processed the truck is already returning to the concrete plant for the next load. There, the truck is cleaned and any remains of the previous load are removed. Within a few minutes the next load is filled and ready for the drive to the airport.

BRIGHT OUTLOOK FOR TRAVELERS

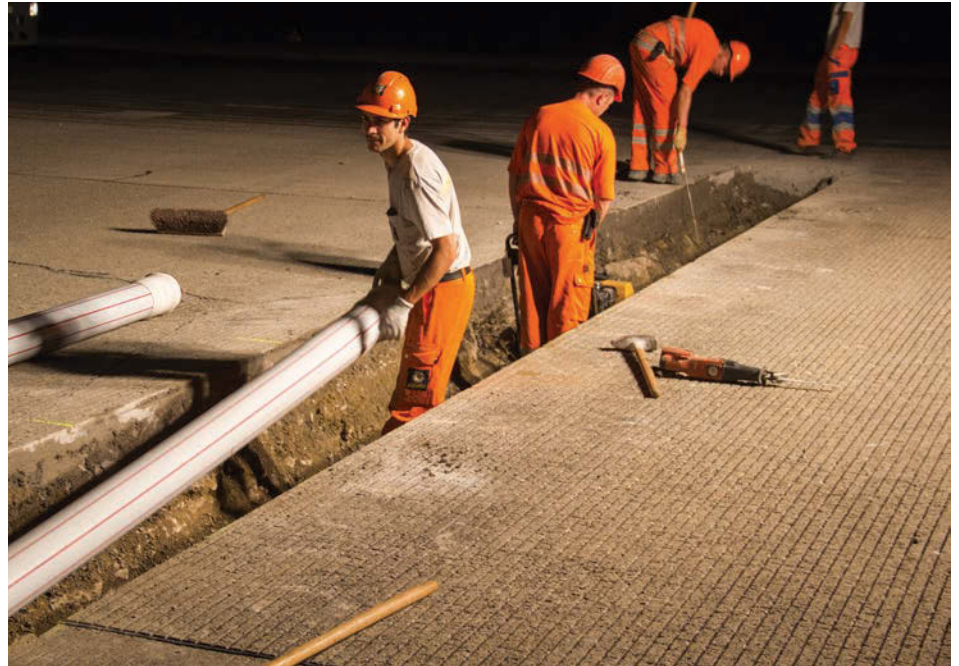
Each night, four trenches on the runway are cut open, excavated, pipes placed and filled up. Multiple teams are working simultaneously on these trenches in different stages of progress. A total of 240 trenches are done laying the foundation for the refurbishment of the medial stripe. The last construction work will be done in 2014 including the cabling of the runway lighting system through the pipes.

Detailed planning, excellent teamwork, reliable raw material suppliers and the right concrete mix are the basis for a successful realization of such a project. Travelers can look forward to the runway presenting itself in the new light, sending passengers around the world or welcoming them safely on the ground.

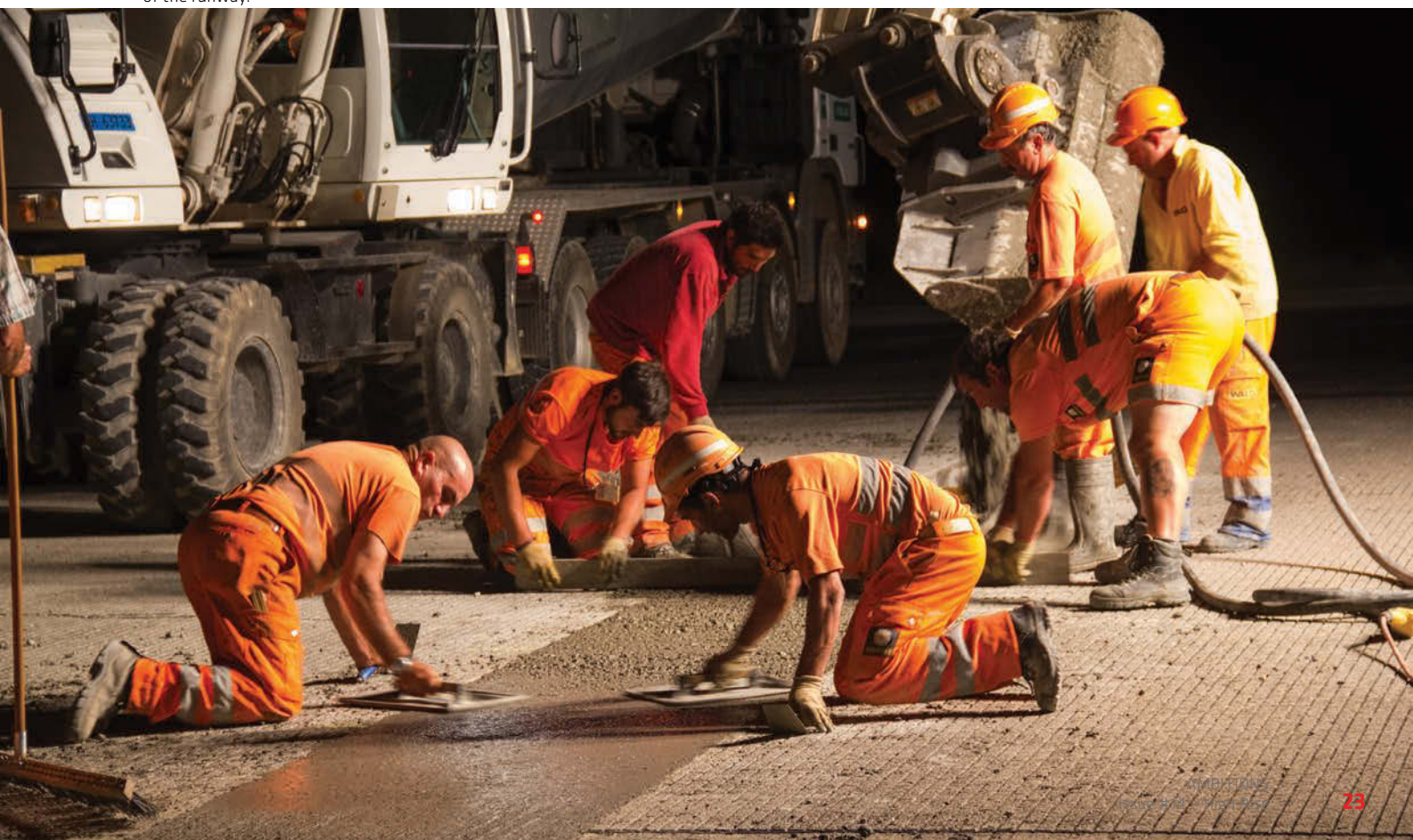


After successful processing the concrete is roughened with a broom.

Placing of pipes which will accommodate the cables (on the right).



The concrete needs to be the exact height of the runway.





FROM DESTINY TO SUNSHINE – HUGE REVAMP FOR CARNIVAL SHIP

Transportation is not the prime purpose, as cruise ships operate mostly on routes that return passengers to their port of origin. The experience, the getaway from the everyday out in the ocean and the relaxing effect of being outdoors and having just the water nearby are the main reasons for people to go for this outstanding experience. But the main attraction stays the cruise itself. The experiences that travellers can make bring the real joy.

TEXT: IGOR VASALLO

PHOTO: VARIOUS

- > The transformation of the Carnival Destiny into the Carnival Sunshine included the update of their older tonnage to match the amenities available on their latest ships. Economic elements were also updated. In most cases, a typical cruise refit focuses more on “soft” features – for example, restaurant concepts are updated and spa and fitness facilities receive attention. Bars and entertainment areas together with cabins are frequently upgraded as well. All this was done on what was to become the Carnival Sunshine. In addition to these soft enhancements, however, the ship underwent significant structural changes. The Carnival Destiny was built in Italy and delivered in 1996; at

101,353 gross tons, it was by far the largest cruise liner in service at the time. It was also the first post-Panamax size vessel and also the first passenger ship whose gross tonnage exceeded that of the biggest ship of the liner era – the first Queen Elizabeth at 83,673 grt.

MAJOR STRUCTURAL AND LAYOUT CHANGES

The ship spent 49 days at a Fincantieri yard in Italy before re-entering service in April 2013 on 9- and 12-night Mediterranean cruises. The refit incorporated the Fun Ship 2.0 features that distinguish Carnival's newest ships. The numerous alterations



New venues onboard include a food marketplace instead of a conventional lido buffet, a new steakhouse and a casual restaurant concept.



After the refurbishment the Carnival Sunshine was not only a newer ship, but a better one for guests and crew alike.

included the addition of a large sun deck forward on deck 14. The ship also received a total of 168 additional cabins, some of which were built forward on deck 12, where they replaced an outdoor area with a Jacuzzi and mini golf.

Further cabins were added in a forward area of the deck below that was previously occupied by the fitness center. A pool was fitted in the outdoor area just aft of the cabins here. The cabins and suites on these two decks plus the ones forward on deck 10 were given the new designation Cloud 9 Spa. This features a large fitness area and gym complex that has been fitted forward on deck 10, which was previously occupied by cabins.

Aft on deck 9, a sun deck and pool made way for an expanded lido buffet. Cabin decks 8, 7 and 6 were retained in their existing form in structural terms, although the cabins themselves were refurbished. On deck 5 aft, a secondary lounge and two other small public rooms were removed and replaced with cabins, some of which have balconies overlooking the stern. Amidships on this deck, the traffic flow was altered by replacing a passageway on the starboard side by an almost S-shaped corridor linking up to the atrium.

Perhaps the biggest structural change embraced the forward section of decks 5, 4 and 3. Previously occupied by a large theater running through these three decks, the area on decks 5 and 4 were taken over by smaller entertainment areas that are just one deck in height. The area on deck 3 was given up for additional cabins.

EFFECTIVELY A NEW SHIP

The transformation of the Carnival Destiny to the Carnival Sunshine effectively made it a new ship offering a new guest experience. In addition to the structural changes and new public areas, passenger accommodation was refurbished as well. A crisp white-and-blue based color scheme as adopted instead of the previous warm yellows and browns.

New venues onboard include a food marketplace instead of a conventional lido buffet, a new steakhouse called Fahrenheit 555 and a casual restaurant concept dubbed The Comfort Kitchen. On the bars front, the Havana Bar in the marketplace are

now in transition throughout the day. It serves Cuban sandwiches at lunchtime and then converts into a live Latin music venue after sundown, also serving late night snacks. The adults-only Serenity bar offers a range of made-to-order shakes and salads.

Partner Ship Design, the Hamburg-based interior designers, was in charge of the entire project. They were lead designers of the Carnival Breeze and designed many of the open deck spaces on the Carnival Magic before being chosen by Carnival for this project. The transformation of the Carnival Destiny to the Carnival Sunshine, a name that had been contemplated in-house for quite some time, is part of the program called Fun Ship 2.0, a comprehensive series of upgrades to the fleet carried out over a period of five years.

MORE PASSENGERS, BETTER GUEST EXPERIENCE

When it emerged from the shipyard, the Carnival Sunshine was not only a newer ship, but a better one for guests and crew alike. "That from the beginning is about protecting, not about enhancing and improving the guest experience. So even though there will be some additional passengers, we look at the ways they use the ship, its spaces. Guest capacity is increasing by 14%. When we worked on the gym space, treadmills and ellipticals, they were increased by 58% over the current Destiny. We went through bar seats, square footage per kid, number of decks," says Mark Tamis, Senior Vice President of Carnival Cruise Lines.

A key element of the Fun Ship 2.0 initiative is creating greater interaction between guests and crew. "A huge part of my passion is for the guest experience, but also the crew experience – ultimately they are the ones who deliver the guest experience. We've seen that success on Carnival Liberty. Not only do the guests love the new experience, but the crews love working onboard too. Carnival Liberty was the first ship where we did Fun 2.0: Guy's Burger Joint, new deck parties – not just creating a space where guests can get a drink, but a stage for them to have an emotional connection with the crew," Tamis concludes. And you? After looking behind the scenes...have you become curious for a cruise trip? Go ahead, the next travel agency is just around the corner.

SPORTS AND MUSIC AT THEIR BEST

Remember that feeling you get after a concert where your throat is sore and your ears are ringing but you still want to sing your heart out. Or watching a basketball or tennis match and you see your stars winning. Whether music or sports, simply being at an event can leave you refreshed and energized. And the experience can take you to a whole new level if the event takes place in a breathtaking environment.

TEXT: JENNY PERELLO, ASTRID SCHNEIDER
PHOTO: VARIOUS

AMBITIONS

Issue 114 • March 2015





The architects had a brief for the Perth Arena for durable flooring on all concrete surfaces that must also be sympathetic to the overall design colours and aesthetics.

IN WEST AUSTRALIAN'S LAND-MARK UP TO 15,000 PEOPLE CAN ENJOY THE EVENTS.

> The Perth Arena is an entertainment and sporting arena in the city centre of Perth, Western Australia. It was officially opened on 10 November 2012. The Perth Arena is the first stage of the Perth City Link, a 13.5 hectare major urban renewal and redevelopment project which involves the sinking of the Fremantle railway line to link the Perth central business district directly with Northbridge. The multi-award winning project was jointly designed by architectural firms Ashton Raggatt McDougall and Cameron Chisholm Nicol. With its design based on the Eternity puzzle, the venue holds up to 14,000 spectators for tennis events, 15,000 for basketball and a maximum of 15,500 for concerts. The venue has a retractable roof, 36 luxury appointed cor-

porate suites, a 680-bay underground car park, 5 dedicated function spaces, and touring trucks can drive directly onto the arena floor. Conceived by ARM Architecture, the Perth Arena features a flexible design and striking façade, furthermore incorporating a large auditorium, event spaces and food and beverage outlets. Sikafloor systems have been applied across 8000 square metres of the new Perth Arena, a multi-purpose events stadium catering for up to 15,500 patrons. Architecturally designed, this landmark West Australian venue demanded a mix of aesthetic and performance-focused surface solutions.

"Sika has experience in construction solutions for stadiums and other commercial

and public buildings, including the MCG, Etihad Stadium, AAMI Stadium and Adelaide Oval," said Sika project manager, Anthony Lewis. "We were asked to address flooring for the internal concourse, bar and function spaces as well as the extensive seating areas, with each zone presenting its own challenges."

As well as managing the heavy footfall of thousands of patrons each week, the internal concourse required walkways to be a visual match with the unique wall design. The textured, medium duty epoxy Sikafloor®-263 NS was chosen as an anti-slip, self-levelling floor topping system, tailored to the desired visual effect. Applied in a grey white colourway, the surface was inlaid with a thick black



As with most new stadiums, floors play an important part of the durability and overall design considerations.

band, connecting with the pattern that extends across the walls and ceiling.

The colour matching continued in the seating areas where the Sikafloor®-2530 W coating in Signal Blue was specified and applied to all concrete seating platforms, associated stairs and access ways within the stadium. Ideal for interior and exterior seamless floors, Sikafloor® PU clear polyurethane coating was used over polished concrete throughout the bar and function areas where its hard-wearing, abrasion and chemical splash resistant attributes are essential.

"In addition to the aesthetic requirements of each zone, Sika also ensured flooring conformed to the Australian

Standard slip rating for commercial spaces," added Lewis. "Working with our certified partner, Anti-Skid Industries, gave us added confidence in the high standard of the installation and resulting finish."

What is the next match you'll be going to? Or the next concert? Experiencing it live with friends or family is always a very special and memorable experience. Forget television.

Take a look inside the Perth Arena here <http://youtu.be/DCI6gDxypik>



Sikafloor®-2530 W coating was specified and used on all concrete seating platforms, associated stairs and access ways within the stadium area.



Visiting the Stadler Rail in Switzerland.

WOMAN POWER FOR TECHNICAL SUPPORT

NINA BÄBLER
 Technical adviser
 Adhesives and Sealants Team
 Sika Switzerland

They had only just started remodeling the reception area at the part of the Sika Headquarters in Zurich when I arrived for my first day as an intern.

TEXT: NINA BÄBLER
 PHOTO: NINA BÄBLER

> The Head of Marketing & Technology was there to welcome me and the other two newcomers who were waiting in the temporary reception building. My name is Nina Bähler and before I say any more about my first day at Sika, I would first like to explain briefly how I came to know about the company. I was studying Industrial Chemistry at the University of Zurich and, as part of our Master's degree program, we all had to complete a short internship in an industrial environment. During my search for a suitable place, I registered for Natural Science Day 2010. Sika was one of the companies taking part. I was extremely impressed with the

company with its distinctive triangular trademark and huge range of construction chemical products. Its experiments with concrete admixtures also made a great impression and helped to make sure that I did not forget the company. It was here that I had my first brief chat with the HR manager, which encouraged me to send off a job application not long afterwards. Now, coming back to my first day at work. After I was introduced us to all the staff in the main building, I was allowed to move into my office, which I shared with another intern. After a brief introduction to the systems, programs and working methods, I was able to get

down to the task of carrying out a large customer survey for the Industry Market. I would be working on my own initiative and had scope to use my own ideas. It was a very intense time and I really enjoyed working in this large company. I was subsequently asked to stay on as an intern, and this gave me the opportunity to gain hands-on experience of virtually all product areas. I learned a great deal about the way the company is structured when I visited some of major customers and visited the production plants in Zurich and at Sika Sarnafil AG in Sarnen. I was also able to help with product testing.



MY ORIGINAL CONCERN THAT TECHNICAL ADVISERS ARE EXPECTED TO BE LONE WARRIORS HAS PROVED LARGELY GROUNDLESS.



Driving through wonderful mountain nature during the day is just one of the good parts of Sales.



Sika to take-away for vacations.

As my studies were soon about to come to an end, I had to give some serious thought to my future career. I was still very happy at Sika, so the obvious thing was to look for a job there. After a number of meetings, I was offered a job as a technical adviser for wood floor and flooring adhesives. I had actually been thinking more in terms of a job as a product engineer until then, but I now had to give serious consideration to starting on the career ladder as a technical adviser. In the end, I didn't have to think about it too long and decided to accept the job. I started on January 4, 2013.

During the Christmas holidays I began to read through the data sheets for some of the products, trying to categorize them. I was able to study these in greater depth during the eight-week familiarization period that followed. In my first two months on the job, I accompanied my predecessor on many of my visits to customers.

Thanks to the very good overall introduction to my new job, I felt my confidence growing after just a few weeks and was soon motivated to take over the reins myself. The first few months were very demanding. Meeting new coworkers, try-

ing to memorize a vast amount of technical information, attending the customer training courses run by other technical support staff, and the efficient transfer of my predecessor's customer list put me under a lot of pressure. It was like jumping onto a moving train: there was hardly any time to think or relax.

On February 28, 2013, I was given the cellular phone of my predecessor. That was when I started looking after the customers on my own and dealing with all the inquiries. And the train kept on moving. My interactions with customers were all very positive and I was soon on first-

I WOULD LIKE TO SEE MORE WOMEN WORKING IN FIELD SALES.

- > name terms with many of them. I was surprised how easily the customers accepted the fact that they would now be getting their information from a young woman with no previous training in wood floor or floor covering laying.

At first I have to prove myself to my customers a little, but once they realize that I am able to provide convincing answers to their questions, they quickly lose their initial skepticism and are usually very open. I also had to get used to the way the customers placed such great confidence in my advice and system recommendations. I therefore felt under a lot of pressure to get everything right and to make sure that none of my customers would have to suffer the aggravation of having to deal with damage. The pressure quickly eased, however, when I got the assurance that I could always cross-check with my product engineer whether my recommendations were correct. I could also consult my line manager any time if problems arose – usually when I had a difficult meeting with a customer or when I wasn't sure what to do next. This helped me enormously and gave me added security as well as boosting my self-confidence. I remember very well in the early days traveling the country with whole files of product data sheets, brochures and notes and rummaging frantically through everything to find the right answer to each question. And after every phone call I always had a nagging feeling that I had given an incorrect answer or forgotten something. This is happening less and less nowadays, though. Today, I usually only ever take my work folder with me on visits. I can now answer most questions straight away, but if I can't, I know who to ask to get the appropriate information quickly.

Of course, working in such a big company

has the advantage that you can quickly find someone in the company to help you with a problem. This saves a lot of time, and enables us to provide a quick response to queries, thereby enhancing our customer service. That's why my work as a technical adviser is so enjoyable and keeps providing me with the challenges I need. Nowadays, I'm perfectly happy to cold call new customers and, thanks to the sales course that was organized for me, I also have the tools I need to handle this kind of sales task.

The biggest challenge will always be maintaining an overview. You also have to make sure that you don't just let yourself be led by ongoing enquiries, but set your own agenda so that you make progress efficiently. Given the size of our sales patches, this is not always easy, though. You have to make sure that you take the time to maintain an overview. Otherwise, you are likely to end up running like a hamster in a wheel and getting nowhere.

My original concern that technical advisers are expected to be lone warriors has proved largely groundless. Although you are basically on the road on your own, you still have regular contact with other people, and I am already on friendly terms with some of my customers even though I haven't known them very long. Not only that, but I am fully integrated into a team that discusses problems together and helps each other.

I am now convinced that the job of technical adviser was the right choice for me because I have learned so much in such a short space of time. Not just technical things, but also social skills and the ability to deal calmly with the unexpected, which often helps me to achieve my ob-

jectives more quickly. The job of technical adviser demands a certain amount of flexibility, as one day is hardly ever like the next and your schedule is likely to change at the drop of a hat. I have found this to be one of the positive aspects of the job because I have always dreaded the thought of working 9 to 5 in an office.

The past six months have therefore been extremely intense. I should probably also mention that I also had to study for the oral examination for my degree while working on my new job. It was therefore very important for me to occasionally take some time out during all of this. My two hobbies, western riding and hunting, help here, and even though both are quite time-consuming, they have proved to be a very effective way of recharging my batteries away from work.

I would like to see more women working in field sales. They certainly don't have to worry about being accepted and respected in what is largely a male-dominated domain, at least not in my product area. I would even say that, once you have got over the first hurdle of getting to know your customers and have broken down any initial skepticism, there are some distinct advantages to being a woman working in field sales.

In closing, I can say that I am very happy with my job as a technical adviser and that working in the Adhesives and Sealants team is great fun.

TARA OCEANS POLAR CIRCLE 2013

Sika is proud to support Tara Expeditions for a further year as an official supplier. Tara Oceans Polar Circle 2013 is a six-month scientific and academic oceanic adventure covering 25,000 km.



Copyright: Tara Expéditions



Copyright: A.Deniaud/Tara Expéditions

- > The Tara Oceans Polar Circle 2013 research is being conducted around the borders of the ice pack where planktonic activity is the most significant.

In addition to this global biological approach, oceanographic and chemical analyses specific to the Arctic will be undertaken. The aim of the expedition is to understand the vulnerability of polar biodiversity in the face of human activity; how melting of the ice pack impacts the polar marine ecosystem and what types of pollution come into play in these remote areas. Several key factors assure the success of this expedition.

This mission will contribute to the international effort to study the Arctic ecosystem before a probable climate change. It will provide baseline data on the ecological status of Arctic waters, and help identify issues concerning the future development of this region.

The expedition team will also use its presence to inform the public, politicians and the business world about the most urgent environmental issues in the Arctic, as well as problems faced by the people who inhabit the Arctic Circle. For some, the opening of maritime routes is an economic asset but for others, this development poses an environmental risk.

Sustainable development in the Arctic is definitely in question.

Having already completed more than seven expeditions and traveled more than 80,000 km, the boat was given a complete overhaul before its latest departure. As an official supplier, Sika identified what needed to be repaired and recommended a set of products to ensure that the boat is perfectly watertight and thus guarantee the crew's comfort.

Watch some of the nicest fellows Tara Oceans met while finishing their plankton collection from all the world's oceans: <http://youtu.be/kloElqkjYPw>



The students Didier Sonnbichler, Benjamin Kreis, Matthias Ludin and Stefan Höfer took the challenge to go to Kenia and use their technical knowledge to help the villagers.



RECONNECTED

Four students from ETH Zurich are helping Kenyan villagers as best they can: backed by the local population, they are using their expertise to build bridges. Seizing the opportunity to assist on one of their projects – a wooden bridge to link up communities – Sika Sarnafil supplied membranes to protect the structural timberwork against moisture.

TEXT: DIDIER SONNBICHLER
PHOTO: DIDIER SONNBICHLER



THEIR WORK IS VOLUNTARY AND THEY EVEN PAID FOR THEIR OWN AIR TICKETS.

- > “Can you get hold of Sarnafil TPO membranes in Nairobi?” This was the question put to Sika by Didier in August 2013. Didier is a civil engineering Master’s student at the ETH (Swiss Federal Institute of Technology) in Zurich and a member of Econosphere Projects, an organization that endeavors to cover some of the basic needs of communities in Kenya.

The Olkuroto River separates the villages of Talek and Aitong. During the rainy season, the stream turns into a raging torrent that is impossible to cross for days on end, cutting the local communities off from the market, schools and medical care. The solution proposed by Econosphere Projects involved constructing a footbridge to permanently link the villages. The concept is based on the bachelor thesis of Didier and two of his fellow students. In September, at the end of a thorough planning process, the young, committed students set out for Kenya with the aim of building the bridge. Their work is voluntary and they even paid for their own air tickets.

Once the necessary materials had been obtained in Nairobi, they were taken on a long and bumpy journey to the Maasai Mara, where work on the bridge commenced the very next day. The first step was to cast a concrete foundation for the timberwork. The easiest solution would, of course, have been to assemble the entire bridge on land and then crane it into position. But with no crane anywhere nearby, the construction team had to improvise. The bridge was duly assembled on land in small sections, which were then installed piece by piece.

The local villagers showed a keen interest in the bridge project and assisted wholeheartedly in the works. Indeed, the project was fully in keeping with the aims of the organization, which seeks to promote knowledge transfer to local communities. Once the timber structure was in place, it was time to install the Sarnafil TPO (thermoplastic polyolefin) membranes. But how did these get to the Kenyan hinterland? Unfortunately, the answer to Didier’s enquiry on the availability of Sarnafil membranes in Nairobi had

been ‘no’. These are not (yet) among the products stocked by Sika’s recently established branch in the Kenyan capital. However, the necessary products were simply flown in from Switzerland without further ado. Glad of the chance to support sustainable projects of this kind, Sika naturally bore the material and shipping costs.

After their long journey from Switzerland to Kenya, Sika Sarnafil’s waterproof membranes now proudly protect the timber bridge, built to link up people and communities. Thanks to the tireless commitment of the budding civil engineers and staunch support of the Maasai villagers, the footbridge was completed in only three weeks.

Further details of the project can be found in the blog: <http://footbridge-olkuroto.blogspot.ch/>

For more on the Econosphere Projects organization and activities, please visit: <http://www.econosphere-projects.org/index.html>



ROOFING PAR EXCELLENCE

Student housing has long been seen as serving both an economic and a social purpose. We regard it as a special form of living, during a very special time in our lives, in a special community. But many of us also know the feeling afterwards of how nice it can be to live in your own clean flat. If you have ever lived in tiny, shabby student accommodation while at the same time enjoying the student highlife, you are bound to be astonished by this stunning student housing.

TEXT: STEPHEN BURKE
PHOTO: STEPHEN BURKE



- > The Simmons Hall student dormitory is inside the campus of the MIT Massachusetts Institute of Technology, which, together with nearby Harvard University, is one of the most popular and renowned universities in the world. There are more than 10,000 students studying there from all over the US and 100 countries worldwide. Many former students have won Nobel prizes for outstanding peace activities, economics, chemistry or medicine.

Simmons Hall stands 10 stories high and houses 350 undergraduate students. The building is punctuated by terraces and atria and includes a computer cluster, fitness center, a multi-purpose room,

a game room, music rooms, street-level dining, a 125-seat theater as well as laundry facilities and kitchenettes.

The unique architectural building utilizes over 24,000 square feet of Sarnafil membrane in five custom colors – blue, green, red, yellow and orange. Because of the dorm's irregular shape, stagings were used to lower the membrane down several stories. Separate crews adhered the felt-backed membrane to vertical walls and overhead soffits at each story level, following a specific color design pattern. Applying Sarnafil membrane to vertical walls, rather than to horizontal surfaces, is a highly unusual application and was done to achieve the desired color plan.

Simmons Hall's bold geometry is already a Cambridge landmark. The shimmering exterior is wrapped in more than 5,500 windows connected by a grid of anodized aluminum. So the building reflects during the day and glows with interior light after dark. The design of the windows provides low-energy ventilation and dehumidification. In addition, the exposed interior concrete supports night ventilation and maintains cooler temperatures during the day. And now you tell me... Who among you would not have wished to have spent their first semester there?

