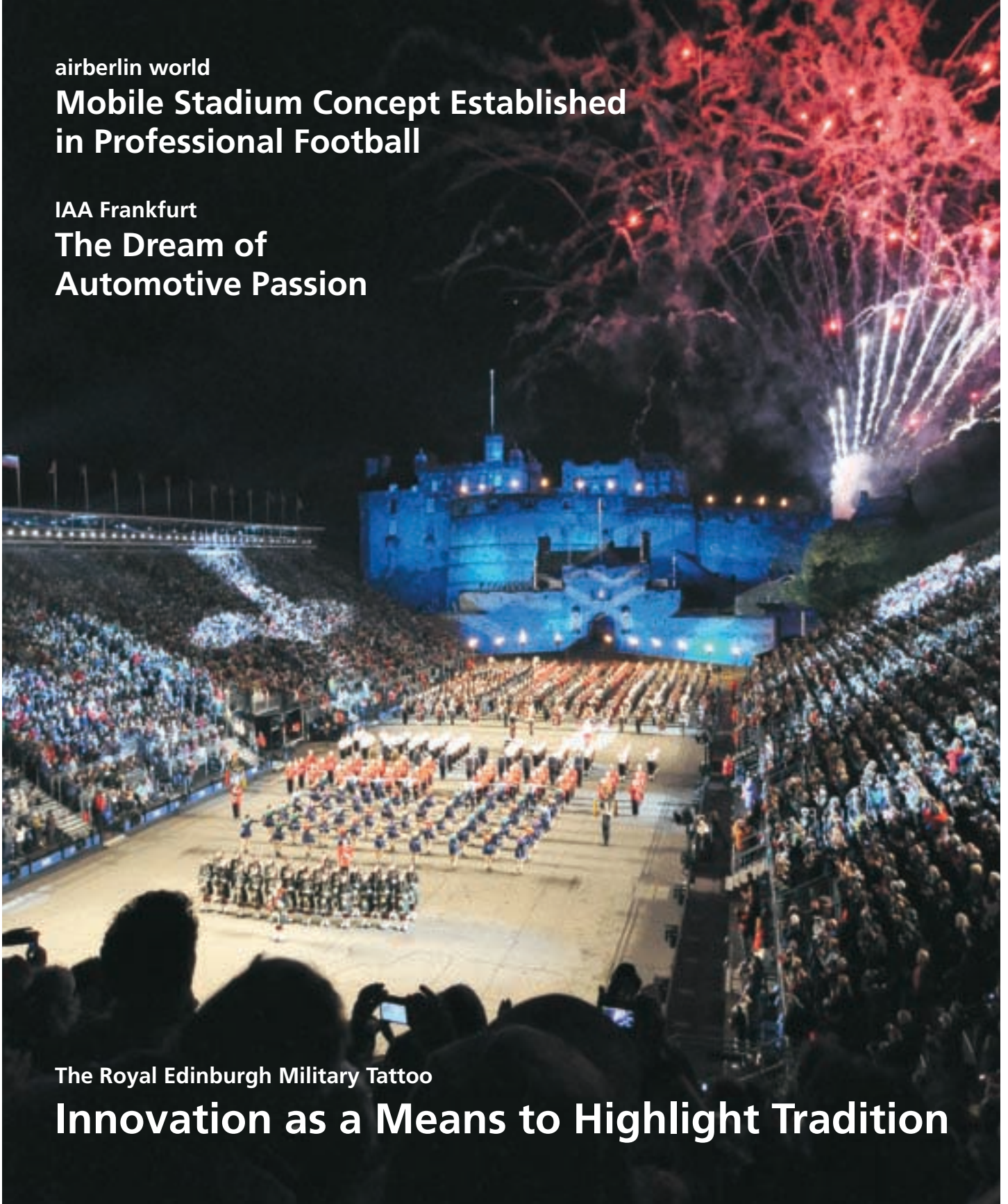


airberlin world

## Mobile Stadium Concept Established in Professional Football

IAA Frankfurt

## The Dream of Automotive Passion



The Royal Edinburgh Military Tattoo

## Innovation as a Means to Highlight Tradition



Isabelle C. Nüssli

## Confidence and Trust Based on Reliability

Even without an Olympic Games, a FIFA World Cup or a World Expo to keep us on our toes, in 2011 the prevailing political and economic changes around the globe brought with them great challenges for NUSSLI. So, at the end of our recent period of international expansion, we took the opportunity to look inward. Where do we stand? In which areas did we do well? What are issues we still need to address in order to improve?



Daniel Cordey

In this period of reflection, we internalized our knowledge gained and learned from our mistakes. Now we strive to support the personal development of our employees and optimize our processes, as these are the two factors that shape our products and services.

We are proud of our international workforce, representing over 20 countries, who are more than just employees – they are problem solvers, contributors, and motivators, and never shy away from taking on responsibility. They are our most valuable asset – and they deserve our gratitude and recognition for their tireless efforts.



Urs Schönholzer

Our industry environment has not become any more stable or predictable in the past year, which is why it has become more important than ever to build on the stable foundations that are our NUSSLI values. One of our most important assets is the reliability that has given us the confidence and strength to face the challenges of the future. It is this reliability that offers the confidence to those who place their trust in NUSSLI: our clients, employees, and suppliers.

Let us continue to work together in the coming year to achieve exceptional results in small and large projects. For our part, we are ready to grow with new tasks and experiences that lie ahead.

Isabelle C. Nüssli  
Member and Secretary General  
of the Board of Directors

Daniel Cordey  
CEO Market

Urs Schönholzer  
CEO Operations and Member  
of the Board of Directors

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## Mobile Stadium Concept Established in Professional Football

With the modular airberlin world stadium, NUSSLI created a complete interim solution for the German professional football scene for the very first time – and in full compliance with the extremely strict requirements set out by the German Football Association (DFB) and the German Football League (DFL). Project Manager Henry Krimmel explains why construction took only two months to complete.

**up'date:** Constructing a stadium for 20,000 fans in under two months – are you a magician?

**Henry Krimmel:** Magic has nothing to do with it. It does, however, take meticulous planning and precise logistics. 150 articulated trucks delivered the material to the exact locations where it was needed, and around 40 installers put it all together according to plan. We felt like we were doing a gigantic puzzle against time. No less than 180,000 individual parts

were installed, including 60 km of steel pipes which formed the substructure.

**up'date:** Why did everything have to be done so quickly?

**Henry Krimmel:** The football club Fortuna Düsseldorf needed a substitute location for their remaining three home games of the season because their home stadium, the ESPRIT Arena, had been taken over with the preparations for the Eurovision Song Contest. The city of Düsseldorf assigned the

project just before Christmas 2010 – and the first match was scheduled for the end of March. That meant we had no time to lose. The extremely short construction times are a key selling point in favor of modular stadiums.

**up'date:** What are the drawbacks of temporary structures in comparison with permanent arenas?

**Henry Krimmel:** There really aren't any – that was proven by the fact that DFB and DFL were

both satisfied despite their extremely strict requirements. The construction costs for the entire stadium – including VIP areas, flood lighting, grandstands, access routes, and dismantling – officially came to a total of 2.8 million euros. The stadium was fully equipped and fulfilled the requirements of the TV broadcasters as well. The 12,500 seats and the standing room for an additional 7,500 spectators also included a VIP area. Almost all places were roofed, and flood lighting and video screens were

integrated into the structure – absolutely nothing was missing. Of course the stadium had to fulfill the same standards as those from other providers.

**up'date:** Why was the airberlin world interim stadium created right next to the ESPRIT Arena?

**Henry Krimmel:** That had a very simple explanation: the football club was able to fall back on the existing infrastructure of the ESPRIT Arena – for example, the parking lots and other security concepts – at no additional cost.

**up'date:** What kind of feedback was received from the fans and the club?

**Henry Krimmel:** The airberlin world interim stadium was designed in such a way that the fans were seated very close to the pitch. They were able to experience the matches in close-up. The fans were all for that, of course. And the team obviously felt right at home in their interim stadium – after all: Fortuna Düsseldorf won all three home games held there. There was also much praise

for the stadium from official sources. We actually received the International Sports Event Management Award in bronze in the category ‚Event Overlay/Facilities‘ for the project.

**up'date:** What happens to the masses of material, once a structure of this size is dismantled?

**Henry Krimmel:** One of the great advantages of the modular system used here is its flexibility. It means in effect that the materials used can be reutilized

in later projects. Once the airberlin world stadium had been dismantled, some parts, for example, went on to be reused as part of the grandstand system for the thunerSeespiele festival in Switzerland. Other elements ended up in the stands for the German Touring Car Championship (DTM) at the Norisring in Nuremberg.

## Delights for the Eye and the Palate

The idea is spectacular: a mobile gourmet temple, constructed in exceptional locations, where visual and culinary delights come together to form an unforgettable experience. The concept embodied in the restaurant pavilion ‚The Cube‘ was successfully implemented by Electrolux. The Milanese architectural office Park Associati developed this exclusive pavilion from the idea by Absolute Blue, which NUSSL then produced as two identical units. Frieder Braun was the Project Manager in this venture and looks back on the project with pride.

**up'date:** Isn't it a bit crazy to want to construct a restaurant pavilion at a height of 35 meters on top of Brussel's landmark, the Triumphal Arch in Jubel Park?

**Frieder Braun:** Sure it's a bit crazy. But at the same time it also was a unique challenge, for which everyone involved tested their own limits to successfully realize the vision of Absolute Blue. For Electrolux it was important to create exclusive cooking and taste experiences in a completely unique environment and with the help of renowned chefs. That was our brief, and we more than fulfilled it: It is really very unusual to construct a mobile restaurant on top of such a spectacular structure, and with a view that is completely breathtaking.

**up'date:** Isn't that pavilion much too heavy for such a sensitive object like a historical structure?

**Frieder Braun:** Of course everything had to be tested right down to the last detail. The managing company of the structure, a local engineering office, and our own statics department determined the basic data. We then knew that we needed a separate substructure for the pavilion in order to place it on top of the historical structure and create a connection with it. Since wind forces play an important role at such heights, even a 30 ton pavilion had to be secured against suddenly taking off. In total, around 60 tons of weight rested on the Triumphal Arch.

**up'date:** How would you describe the pavilion?

**Frieder Braun:** The color white is predominant. The outer shell of the structure consists of white coated, perforated aluminium panels. The interior surfaces are also mostly white – the kitchen





and wall paneling are made from white corian, while the floor consists of recycled, wood-like material. The pavilion is equipped with fully automated airconditioning and lighting technology, which allows for the adjustment of the structure's ambiance depending on the specific event and requirements. The aperitif, for example, can be enjoyed anywhere on the base area or on the external platform. The table is lowered from the ceiling only when it is time for the meal and for the guests to take their seats. Once the meal is finished, the table is pulled back up under the ceiling, opening up all of the floor space once again.

**up'date:** The structure is mobile – what other stops are in the pipeline?

**Frieder Braun:** Two identical pavilions were created. The next scheduled stop will be Milan. For 2012, Absolute Blue is planning something for the Olympic Games in London and on the Opera in Stockholm. Every location has to be checked to the minutest detail, as the pavilion targets mostly very high-profile inner city venues. Eleven articulated trucks will be unloaded on site in quite a short time and the

material put together. NUSSLI also provides all the logistics and associated handling for the entire tour to ensure smooth operation.

**up'date:** What is actually involved in constructing one of these pavilions?

**Frieder Braun:** Planning and production, including a small mockup and a complete trial construction had to be com-

pleted between October 2010 and February 2011. We had 14 days and 12 installers plus climate technicians and electricians for building technology for the actual construction on site.

**up'date:** What did the guests and chefs think of 'The Cube' by Electrolux?

**Frieder Braun:** The concept has been very successful, and

because of huge demand Absolute Blue added breakfast events to the originally planned live cooking dates at lunch and dinner times.

Photo: Carol Kohlen



## Event Structures for Pope Visits in Madrid and Freiburg

Huge crowds gather to celebrate spiritual moments with the head of the Church wherever Pope Benedict XVI travels. The World Youth Days are just one example for the importance of safe and sophisticated event infrastructures. In the Spanish capital Madrid, NUSSLI was tasked by the organizational committee to construct a total of 65 temporary structures in 9 locations. These included two complete TV studios for the media and for broadcasters. It took 25 NUSSLI installers to put together 260 tons of material, which allowed the smooth operation of hundreds of individual events, including masses, concerts, and religious meetings (image above). „The logistics challenge was less in the construction itself than in the number of event structures and their geographic distribution“, remembers Jan Ruiz del Vall, general manager of the NUSSLI subsidiary in Madrid. NUSSLI also contributed to the success of the Pope’s visit in Germany, where he appeared



in Freiburg at the end of September: The team created a roofed altar island of 2,200 square meters (image below) on the terrain of Freiburg’s City Airport. In the interest of sustainability, 80 percent of the system material used will be reutilized in later stage constructions. The highly complex roof construction posed a particular

challenge for the installers, as the design included an extraordinarily large overhang of 16 meters. Innovation power was needed for the realization of this large-scale project: NUSSLI developed an entirely new roof girder for this specific project, which will be utilized as a bridge system for spans up to 30 meters in future projects. The 1,250 square meters

of membrane covering for the altar island were recycled in a very special way at the end of the event: the material was used for the manufacture of fabric bags, which represented a memento of particular value for devout Catholics.



## A Moving Stage for a Moving Performance

Once again the thunerSeespiele festival set new standards in terms of artistic expression with the world premiere of the show ‚Gotthelf – The Musical‘. NUSSLI constructed the partially moving stage, which was driven by winches and a central control unit, thus contributing an important aspect to the impressive theater event. The highly complex construction meant that the installers

had to get more than just their feet wet: six men worked in diving gear for two weeks to get the substructure done. In addition to the stage, NUSSLI also erected a grandstand with 2,700 seats and a platform for the sponsors, as well as a directors‘ and VIP podium. In total, a team of 20 installers bridged around 4,500 square meters of water surface in just three and a half weeks. ■



## Davis Cup Excitement at the Perfect Location



Davis Cup matches count among the most important events in the world of tennis. It is not just individual players competing against each other, but national teams – and therefore entire nations are holding their breath, while athletes fight for ultimate victory in the finals. That is why a Davis Cup round is a matter of prestige. Each host country therefore has very high requirements for a Davis Cup venue, which must generate as much public exposure as possible. For Spain, the bull fighting arena in Córdoba presented an incomparably authentic backdrop for the breathtaking semifinal matches – and the national team’s victory over Argentina and a place in the final was their well-deserved reward.

NUSSLI had been tasked with the organization of this impor-

tant event by the Royal Spanish Tennis Federation (Real Federación Española de Tenis). The highly sensitive environment of the world famous arena ‚Coso de las Califas‘ was soon transformed into a venue with 400 comfortable VIP box seats. The NUSSLI team also designed and constructed the catering areas, restaurant sections, and shops. Furthermore, the project included grandstands for around 2,300 spectators. The project furthermore included media and press areas, and rest areas for the players. The temporary structures had to live up to the extremely high expectations of the international tennis elite. In just ten days, a 40 man team put together a total of 340 tons of material. ■



### Partnership with the Real Federación Española de Tenis (RFET)

The Real Federación Española de Tenis (RFET), founded in 1909, is the Spanish umbrella organization for tennis. The federation is responsible for the Spanish Davis Cup team and the Spanish Fed Cup team. In the summer of 2011, NUSSLI and the RFET formed an official partnership for the organizational planning, rental, construction, and removal of grandstands and other temporary event structures for RFET events.



## Soccer with Real Beach Ambiance

A relatively young trend sport is slowly but surely gaining the kind of attention in Europe it so richly deserves: beach soccer. This sport is gaining momentum, much like the already very popular beach volleyball. Beach soccer originally came from Brazil. It is now played world-wide in over 110 countries and has developed into a professional sport. The game is significantly faster than regular soccer and is a lot more demanding in terms of technique. Seven countries from the European professional league met this summer in Berlin to fight for a place in the finals in Moscow, making Germany for the first time ever host country for a large-scale beach soccer tournament. The Beach Soccer World Wide Federation selected the forecourt of the o2



World indoor arena in Berlin as their tournament venue, where NUSSLI constructed a U-shaped grandstand system for 2,200 spectators. The project also in-

cluded around 200 roofed VIP seats, media spaces, and a VIP area spanning 110 square meters. In total, 12 installers used up 125 tons of material in just

6 days. After the end of the highly successful soccer event, the temporary structures were removed within two short days.

## The Art of Gardening Uniquely Presented

The Gardening and Lifestyle Fair ‚Giardina‘ bursts onto the scene with colorful bloom each year in Zurich, never failing to impress with spectacular stand displays that highlight the fascinating

world of gardening for all the senses. This year, NUSSLI was in charge of the structural implementation of three distinctive concepts. For Berger Gartenbau, NUSSLI created the exotic ‚Marrakesh House‘.

The materials used for the support structure here were wood and steel. The exceptional structure stretched across an area of 185 square meters. The integrated swimming pool created an authentic holiday

feeling. The business confederation ‚Jardin Suisse‘ focused on the diversity and grandeur of the tulip on their 400 square meters stand. 30,000 real tulips adorned the display with the floral name ‚La Boîte aux Fleurs‘ (The Flower Box). NUSSLI constructed the stand in record time, as they did the impressive display of Spross Ga-La-Bau AG, where trees seemed to inexplicably grow down from the ceiling. The 520 square meters stand was constructed from the plans by Martin Abplanalp. The central theme of the display was spring with all its intoxicating facets. The implementation of the multimedia elements of light and sound was realized in cooperation with Winkler Veranstaltungstechnik. Visitors could therefore experience the topic ‚spring‘ literally with all their senses.



## Sophisticated Logistics for the Fistball World Championships

Fistball is a very popular sport in Austria. The alpine republic entered the championship games, which were held in Austria from August 7 – 14,

as defending champions in the summer of 2011. Temporary event infrastructures were needed for a total of five locations to bring the action as

close as possible to the fans. NUSSLI constructed a variety of different grandstands with 1,200 to 2,100 seats in Salzburg, Kremsmunster, Vienna,

and Linz. In Pasching, where the semifinals and finals were held, the team expanded the existing stadium, the ‚Waldstadion‘ by 600 additional seats. Overall, NUSSLI constructed 7,200 seats from 250 tons of material, and coordinated logistics between the far-flung locations with a total of 15 trucks. The installation work was supervised by one chief installer each, heading up a team of 20 helpers. The exciting tournament finally culminated in the final, where Austria faced Germany. The host nation eventually conceded the title to Germany after a very evenly matched and hard game.



## The Dream of Automotive Passion

NUSSLI's competences were in high demand at the International Motor Show (IAA) in Frankfurt. Their highly complex tasks included the construction of the display stands for two industry giants: BMW and Volkswagen. The challenges were immense and required sophisticated logistics to coordinate the movement of 200 tons of steel, countless cubic meters of wood, and enormous amounts of other materials in over 150 truck loads. For BMW, NUSSLI constructed a generous runway – as they had previously done in 2009 – where their premium models could be displayed in action. The display stand of Volkswagen, with a base area of 8,000 square meters, required every ounce of knowhow NUSSLI had to offer. The multi-storey construction consisted of an elegant material mix: 120 running meters of light wall and glass flooring to the tune of

6,500 square meters. NUSSLI also constructed the extensive structures needed for the Volkswagen press conference at the Ballsport Hall in Frankfurt-Höchst: in addition to a grandstand with 1,500 seats, a 2,500 square meter raised stage and two mighty galleries were built, which hovered eight meters above the ground. A glass box with a floor element that could be raised, set a spectacular scene for a new Porsche model. The fourth project consisted of the construction of a 48 x 60 meter temporary event hall for the premium manufacturer Audi. All of these projects required precise installation management, as the time slots for construction and removal were extremely narrow.



## Where ‚Eternal Love‘ Lives

The musical ‚Evita‘ is for Argentina what ‚Ewigi Liebe‘ (Eternal Love) may become for Switzerland: a musical opus with national identity factor, in which traditional Swiss dialect evergreens have finally found a home. Almost half a million people have come to see the musical in Zurich to date. The

humorous piece about love and betrayal has been on stage in Berne since November 2010 as well, presented at a temporary theater that was constructed by NUSSLI in just two and a half months. In addition to the stage technology features, which were tailor-made for the musical, the venue offers

1,000 seats with unobstructed views of the stage. The musical hall was constructed on the Wankdorf City terrain, with dimensions of 60 by 37 meters. NUSSLI installers also created the foyer, VIP podiums, grandstands, and partition flooring and walls. The team of 15 experts installed a total of 550

tons of material within a very short space of time to create a temporary home for ‚Eternal Love‘, which could be removed quickly and completely at any time, should the need arise. At the moment, however, there seems to be no limit to the success of this original Swiss musical story. ■



## More Space for Paddle Tennis



Paddle tennis is quite similar to the traditional version of the sport, with the only difference being that it is played with shorter rackets and in doubles only. Every time the Spanish Padel Pro Tour reaches the capital Madrid, seats at the stadium ‚Ciudad de la Raqueta‘ are always scarce. The solution: the quick and easy construction of an expansion by NUSSLI. 1,800 additional seats and 272 VIP seats complete with access

ramp were created. The special challenge here was the difficulties that logistics posed: A particular challenge was posed by the tricky logistics owing to the limited access to the stadium. When the tour’s top players start their fight for the title in Madrid in December, NUSSLI will also be part of it all once more. The existing stadium will again be equipped with temporary grandstands and VIP seats. ■

## Playing Football in a Baseball Stadium

College Football is coming to AT&T Park. The NUSSLI project in San Francisco, California demonstrates that sometimes an unconventional approach leads to the best solution. AT&T Park, the home stadium of the famous Giants baseball club, will become the temporary home to the University of California Golden Bears football team. Due to renovations in their own home stadium, the Golden Bears will play their 2011 home games in AT&T Park. In order to equip the baseball stadium for a football game, NUSSLI provided the stadium with a grandstand facility located in the outfield section of the ballpark providing 6,000 seats. Due to the Giants still playing baseball, the temporary spectator seating is installed in a 36-hour period by a team of 18 assemblers working in two shifts and dismantled in just 24 hours.



The particular challenge for the NUSSLI team is due not only to the remarkable speed in which the facility needed to be built – an equally important aspect is the flexible game-dependent planning. „The

rapid construction called for caution during construction, to prevent damage to the delicate baseball field,” according to Pascal Derron, who was in charge of management for the project.

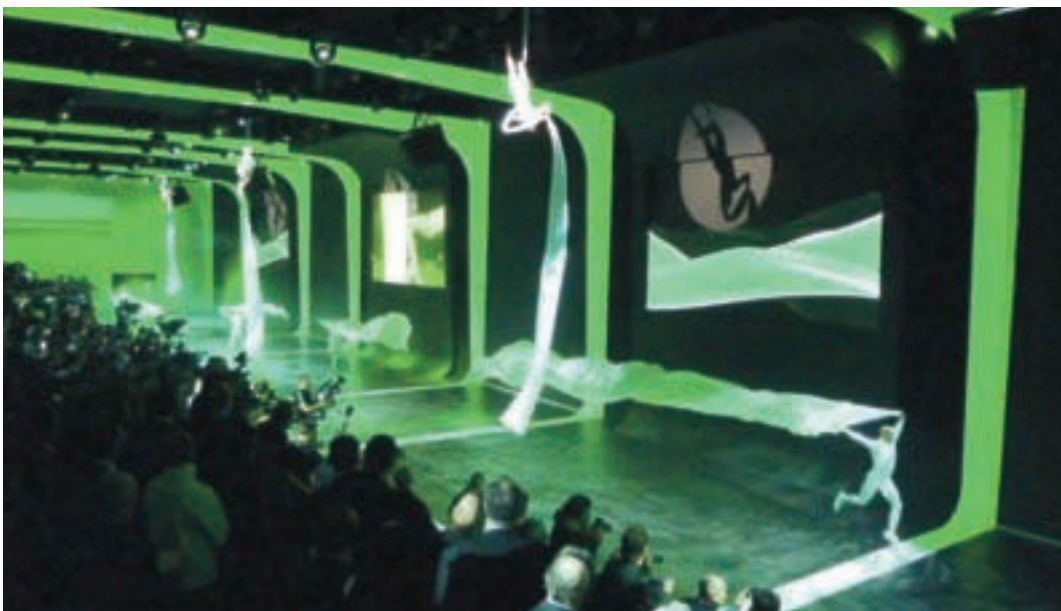
## Focus on Automotive Future

Volkswagen used the corporate evening on the day before the start of the Geneva Motor Show 2011 to present a view of the history and future of the

Group’s various brands. NUSSLI created the proper background for the event from plans by Feld & Team GmbH at the Sècheron Hall in just five days. The focal

point of the project was a ‚cat-walk’ on which the numerous innovations of the VW brand family were to be showcased. NUSSLI also created a land-

scape of podiums and a secondary support structure for the construction, which took up an area of 1,200 square meters. The 26 man strong NUSSLI team constructed a comfortable grandstand system, from the vantage point of which the 600 invited guests could enjoy the highly emotional brand presentation featuring innovations and concepts of the brands Audi, Porsche, SEAT, Skoda, Bugatti, Lamborghini, Bentley, and of course VW. The design and color scheme was futuristic and purist to create a fitting background for the vehicles and the effectively choreographed framework program of the presentation. The team needed just two days of double shifts to remove all elements of the project after the show.





## Innovation as a Means to Highlight Tradition

The Scottish are a proud people and they take their traditions very seriously. One of their most important traditions is the annual Royal Edinburgh Military Tattoo. It is the largest music festival in Scotland and draws around 220,000 visitors to Edinburgh Castle each year. The high point of the event is the traditional march of 250 pipers and drummers in front of the castle. NUSSLI was tasked by Sir Robert McAlpine to design and construct a temporary grandstand system in the highly vulnerable environment of this unique historical building, which had to fulfill all requirements for a premium-quality permanent arena.

Night turns into day, when 200 red-kilted pipers, accompanied by a breathtaking fireworks display, march solemnly across the draw-bridge of Edinburgh Castle towards their destination, the Esplanade in front of the castle proper. This is the moment that 8,800 spectators on the newly constructed grandstand have been waiting for – and no true Scotsman, so they say, will miss the spectacle broadcast live on TV.

Military music groups from around the globe participate in this large-scale event, and much of its fascination is based on the fact that it is so intimately connected with Edinburgh Castle itself. The fortress on top of

an ancient extinct volcano is a place of national identity – the Scottish crown jewels, for example, are stored within its walls. Every event held on the mighty forecourt, the Esplanade, must therefore comply with special requirements to ensure that the historical buildings will not be damaged in any way.

With this tall order in mind, the planners at NUSSLI went to work in 2009 to create a grandstand system that would fit this very special environment to a T. Once the development phase of an optimized preliminary project was complete, an initial grandstand prototype was manufactured at NUSSLI's own fitting shop in Hüttwilen to allow the

customer to inspect the various folding seats, railings, and floor coverings to be used. The installation of the overhanging structural components was very difficult, which is why yet another prototype was created, once the planning stage for the entire steel construction was complete. This time the prototype was constructed in actual size on the premises of the Scottish steel fabricator. It was then used to practice the construction and removal processes and to verify the practical usability of the custom grandstand elements.

### Construction Time was Halved

Previous grandstands had been painstakingly constructed from thousands of individual steel elements, which had to be interlinked. The new grandstand system, on the other hand, was planned from the very beginning to drastically reduce construction and removal times. It was particularly important to cut down crane work hours to a minimum, as space on the Esplanade would be at a premium. NUSSLI designed the steel parts, which have to be mounted with a crane anyway, as large as possible and pre-assembled them as much as they





could. The buildings consist of individual room modules, which are up to 3.6 meters wide and 9.8 meters long. The grandstand components that still have to be assembled by hand were designed in aluminium to keep them as light-weight as possible. All these measures led to a drastic shortening of construction times – from originally three months to just six weeks – even though the new system is con-

siderably more complex than its predecessor.

The architectural layout of the new grandstand system has been optimized. The new closed U-shape allows for better space utilization, and even the corners now offer high-quality seating, which means a semi-circular 'bowl' is created, which also improves the overall ambiance.

All seats have very good views and are much more comfortable as well. In order to ensure that the system can also be utilized for rock concerts at some point, static calculations also allowed for dynamic loads in compliance with latest and strictest British standards. The result is a much more rigid, more massive, and entirely safe grandstand system.

One particular challenge the planners resolved was the very specific geographic conditions of the venue: Castle Rock, on which the fortress stands, falls away steeply on three sides. The southern grandstand juts

out in parts up to 9 meters over the precipice. The work on the foundations required much care, as the area is – on top of everything else – also an archaeological site. And: All work had to be coordinated in such a way as to not hamper the steady stream of tourists visiting the castle each day. Not an easy task, when a team of 40 men needs to coordinate the movement of 900 tons of steel and 100 tons of aluminium in 160 truck loads. In addition to the grandstands, NUSSLI also constructed a number of functional rooms for technology, VIPs, and for the artists – in total almost 100 modular structures. The new, smarter, and more efficient grandstand system ensures that The Royal Edinburgh Military Tattoo is ready to face the future, and that the high demands and requirements of the organizers – in terms of safety, comfort, and sustainability – are fulfilled, while the historic fortress remains untouched. ■



"NUSSLI provided a sophisticated grandstand solution that sets an entirely new benchmark for safety, comfort, architecture and functionality in temporary structures. NUSSLI presented itself as a reliable and professional partner and were able to fulfill the many challenges in terms of design, technique and logistics. On behalf of

The Royal Edinburgh Military Tattoo I would like to express my sincere gratitude for your outstanding commitment."

*Tom Chambers, Major Projects Development Manager  
The Royal Edinburgh Military Tattoo*





Zwingerfestspiele, Dresden (DE)



VW Facility Opening, Chattanooga (US)



DEW Tour, Ocean City, Maryland (US)



Bruckner Orchestra Open Air, Linz (AT)



Photo: Ralph Leumann

autosymphonic, Mannheim (DE)



Movilidad y Innovacion, Madrid (ES)



Mercedes Benz Jubilee, Stuttgart (DE)



Crédit Agricole Suisse Open Gstaad (CH)



Eurovision Song Contest, Düsseldorf (DE)



Red Bull Flight Day, Lucerne (CH)



Carouge en Fête, Carouge (CH)



'Outlook' Bass Music Festival, Pula (HR)



Snow Show Barcelona (ES)

## Exhibitions to Make **150 Years of Italian Identity** more Accessible

How to celebrate the jubilee year of a nation that is famous like no other for its cultural achievements? How can 150 years of Italy be portrayed effectively? Two exceptional exhibitions in Torino have bravely asked these questions and – with the structural support of NUSSLI – have created a fitting portrait of a very special country and its art metropolis.

Which of the many art treasures best reflects Italian identity? Which works can be seen as symbolic for the fairytale riches of this nation's culture? Who are its worthiest representatives? Leonardo da Vinci, Botticelli, or Tintoretto? A stroll through the impressive architecture of the Juvarra stables and the Orangery at the royal palace Reggia di Venaria Reale presents a mixture of the virtuosity of many exceptional artists. The incredible height of the rooms leaves the visitor feeling small and insignificant in the face of the incredible art all around. The major metropolitan cities of Italy, which have shaped centuries of history with their painters and sculptors, are presented in

eleven distinct sections: Rome, Milan, Torino, Genua, Venice, Parma, Modena, Florence, Bologna, Naples, and Palermo. Visitors walk in part along 2.500 square meters of painted synthetic grass covered with 20,000 leaves representing the four seasons, in part on 700 square meters of walk-on mirror flooring that creates an extraordinary spatial effect. All in all, NUSSLI has constructed 4,500 square meters of walls of painted fibreglass-reinforced plastic, up to 6 meter in height – the rooms, and the entire palace, are part of a UNESCO World Heritage Site. That meant that the construction of these exceptional art backdrops had to be constructed with particular care



and sensitivity. The large number of platforms and showcases were a conscious effort to underline and accentuate

the unique diversity of Italian art. The Museum Officine Grandi Riparazioni also created a multi-layered exhibition symbolic for another aspect of Italian identity in a historic factory building. The curators have put together a variety of typical Italian topics in 13 areas, traced their historical development, and highlighted their influences over time up to the present day – topics include the church, war, industrialization, Mafia, and the media. The individual topic 'islands' were equipped with various multimedia elements, e.g., interactive videos or talking statues representing historic figures. NUSSLI specialists were tasked with the planning and implementation of the entire audio and video technology for all presentations, installations, and projections – who were therefore given the opportunity to wish Italy a 'Happy Birthday' in their own way.





## A Lab for the **City of the Future**

The BMW Guggenheim Lab is an entirely new approach to finding answers to the great questions posed by urban life in metropolitan centers of the future. A mobile lab is hereby the pivotal point of the project, which is made accessible to everyone and acts as a pulsating nerve center for ideas and concepts. NUSLI constructed this mobile lab in New York City – using the visionary material carbon for the very first time in the company’s history.

Human life will concentrate around metropolitan centers in the future even more than it already does today. That fact poses some basic questions for urban communities and city planners: How will cities develop in terms of architecture and design? What effects will these factors have on social structures, education, science, technology, or mobility? The complex intertwining of individual challenges of this kind

requires a brave approach, which will create concepts without any constraints and open-ended, springing from the very heart of the cities. The initiators of this project – BMW Group, Solomon R. Guggenheim Foundation, and the Guggenheim Museum – have created with the BMW Guggenheim Lab a mobile and flexible platform, which will collect ideas, create discussion, and record results. The

project entails that a total of three separate labs, which will travel to various metropolitan centers around the globe over six years. New York was the first experience – the next stops will be Berlin, then Mumbai. BMW Guggenheim Lab is set to bring together leading personalities from the sectors for architecture, art, science, design, technology and education. The lab covers an area

of around 250 square meters and stretches over two floors. The lower part of the structure serves as a flexible meeting room, forum or presentation space, and also as a stage or screening room. The lab is 30 meters long and 6 meters wide, at a height of 8 meters. A new experience for NUSLI: the material used for the support structure consists of carbon profiles; a material never before used for building. The

light-weight and also very robust material increases the flexibility and transportability of the lab. The architectural design is by Bow-Wow Studio in Tokyo. The focal point of the initiative under the futuristic roof of the BMW Guggenheim Lab lies on a program comprising 100 subsections that is open to the public. Included are workshops, presen-

tations by renowned speakers, demonstrations, and screenings. The initial travel circuit of the lab will end in Mumbai in 2013. The findings of this visionary project will then be presented in a special exhibition at the Guggenheim Museum in New York. „We want to trigger an open dialog about the challenges we will be facing in the future“, says

Harald Krüger, Senior Board Member of BMW AG. He sees the initiative as „a milestone founded on our experience in the areas of sustainability and cultural commitment“. NUSSLI specialists provided the engineering development for the lab and realized its production and installation – in just five short months. Four weeks of that time were used by nine

specialist installers for the actual construction in Manhattan. NUSSLI will also be in charge of the logistics and constructions of the BMW Guggenheim Lab's next stops in Berlin and Mumbai.

## Jealousy and Revenge at St. Gallen's Monastery

The St. Gallen Festival surprised visitors with the brave production of a lesser known opera. „I lombardi alla prima crociata“ by Giuseppe Verdi is already the sixth opera presented at the St. Gallen Monastery venue on a stage provided by NUSSLI and with the impressive backdrop of the city's cathedral.

The annual high-point of St. Gallen's festival season is the opera production staged at the monastery, which forms part of the UNESCO World Heritage Site ‚Abbey District‘. „I lombardi alla prima crociata“ is a traditional opera with a religious topic, and its production impressed St. Gallen audiences

with spectacular scenes and outstanding choral passages. The opera is set at the time of the crusades, and like in so many of Verdi's works, focuses on love, jealousy, religion, and good versus evil. These topics come alive today just as they did in the 11th century. The production tells the story

adapted to modern times and uses a consciously bare stage setting. Hank Irvin Kittel designed a curved base body for the scenery, which represents all locations of the play, sometimes giving the impression of a leaf, a dune, or a wave. The larger distance between the stage and the cathedral in the

background draws the eyes of the spectators towards the towers of the cathedral, and lends an impressive air of religion to the venue. The St. Gallen Festival has made a name for itself with unconventional productions of lesser known works by famous composers, and has become an insider tip for music lovers nationally and internationally. NUSSLI constructed the stage and scenery, as well as the grandstands for the very first festival in 2006, and has done so each summer since then. The implementation of this year's stage set posed a particular challenge to NUSSLI's wood production unit: a wave-shaped, three-dimensional scenery, which comprised an integrated, water-tight orchestra pit. This year's production, the opera „I Lombardi alla prima crociata“ is a coproduction of St. Gallen Festival and the ‚Domstufen Festival (festival on the steps of the cathedral) in Erfurt. The same stage will be reconstructed at next year's Domstufen Festival in Erfurt, and will represent the locations of the opera in front of the imposing cupola dome of the city.





## Self-supporting: A strong bit of extending

It is THE top football event on the African continent: Gabon and Equatorial Guinea will be the hosts for the spell-binding final round, in which 16 national teams will be fighting for the trophy of the 2012 Africa Cup of Nations. One of the locations will be Bata in Equatorial Guinea, where the local stadium with about 20.000 seats to date did not fulfill the requirements for hosting an event of such magnitude. NUSSLI delivered the solution for the space and quality problem by constructing a second, roofed tier: more than 15,000 additional seats in the new upper tier, which had to be planned as a self-supporting structure, result in a modern arena with capacity for 35,000 spectators.

The extension of the football stadium in Bata extends like a spaceship into the steel blue sky. It is ready to host the opening match and one of the semifinals of the Africa Cup of Nations: its shiny outer shell, next generation materials, and significantly more height come together to present a sight that no football fan in Bata has ever seen. A lot of knowhow and experience had to be invested into this very ambitious project until the African Football Federation CAF approved the venue, and until it complied with the highest requirements set out by TV stations, VIPs, and the press. That was because the structural condition of the original stadium did not allow NUSSLI specialists to simply add the planned extension on the top of the existing structure. „We had to develop an entirely self-supporting upper rank – in-

cluding roofing“, explains Project Director Bernd Helmstadt. NUSSLI planners had to dig deep and draw from their experiences from many stadium projects so that all requirements in terms of safety and comfort could be met. Only complete compliance with the extremely high standards of FIFA and CAF would guarantee exciting football fun of the highest order. In addition to planning, NUSSLI was also in charge of all aspects of logistics and final installation. Both of these turned out to be stimulating challenges – particularly in terms of the huge volumes of material needed: 275 sea containers with the steel construction and facade shell made from aluminium had to be shipped after they were constructed at the manufacturing facilities in Germany, the Czech Republic, and Italy. „Regular galvanized

steel parts just wouldn't do“, says Bernd Helmstadt. The tropical climate in the coastal nation of Equatorial Guinea means that corrosion protection is a particularly important issue. It meant that all elements had to be coated with a special anti-corrosion agent. „We had to plan every single step in the workflow with highest precision because of the very tight schedule we had been given“, remembers Bernd Helmstadt. And it worked: construction began at the end of February 2011, and the whistle for the first test match will be blown in November this year. When it came to the installation of the self-supporting extension, more than 120 specialists were involved hands-on at the top. Responsibility for the hugely demanding planning phase alone was divided among 12 heads. But it was all worth it

in the end: the capacity of the Bata stadium has increased by 15,150 places, and professional infrastructures for the press and for TV broadcasters have been implemented. The stadium extension is impressive in terms of its dimensions as well: it is 280 meters long, 210 meters wide, and 27 meters high. The top rank spectator places are reached via 16 large and secure stairwells. Even the electric systems and flood-lighting were in the hands of NUSSLI. Bata football fans have already fallen in love with their ‚new‘ stadium. The permanent extension constructed by NUSSLI in a modular way (Modular Stadium®) makes the arena now and in future a potential contender for large-scale sports events at an international level. And it also in some way helps symbolize the growing power of a developing continent. ■

## 2012: It'll Stay Exciting

up'date not only summarizes projects from 2011, but also offers a taste of some current and future challenges on this page.

### BMW Guggenheim Lab in Berlin

The BMW Guggenheim Lab will be presented next in Berlin/Germany. Here too, NUSSLI was tasked with the logistics and construction of the project.

### 'DAS HAUS' – New Roadshow across North America

Between April and July 2010, 'Casa Alemana' travelled through 13 Latin American countries, introducing German industry knowhow with regards to renewable energy and energy efficiency (as reported in up'date 2010). As a follow-up to the successful tour of Latin America, another roadshow was developed: 'DAS HAUS' began its tour of North America in October of this year. The 'DAS HAUS' 15 month tour will stop in 12 cit-

ies. Two NUSSLI project managers are in charge of planning the smooth construction and removal, as well as extensive logistics for the pavilion – which will be traveling by rail and road – as well as all necessary customs formalities. Two Swiss NUSSLI installers will be accompanying 'DAS HAUS' on the entire tour, and will be heading up local construction crews at each location of the roadshow.

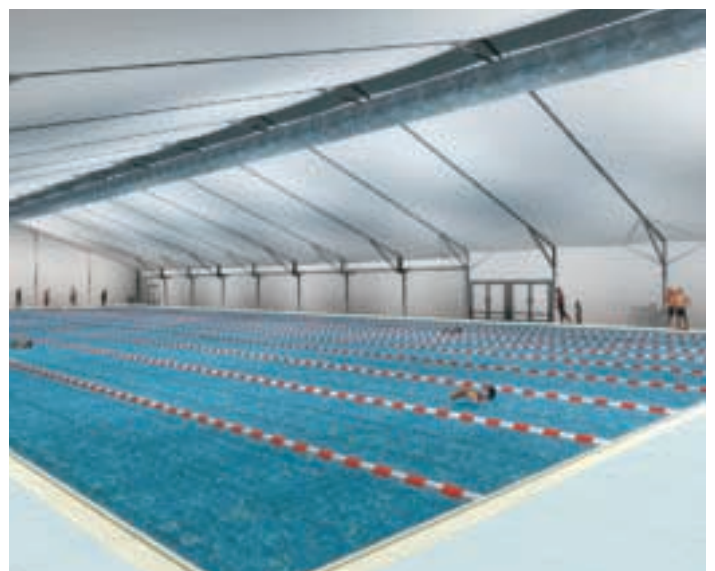


Temporary extension, Art History Museum Berne, Berne (CH)

### Baku Crystal Hall Constructed with NUSSLI Participation

A state-of-the-art sports and concert complex will be created in Baku (Azerbaijan) over the coming months. In cooperation with Alpine Bau Germany AG (Eching), the general contractor tasked with the project, NUSSLI will be majorly involved

in the planning and realization of the complex. The arena, which will bear the name 'Baku Crystal Hall', will provide space for around 25,000 spectators on the site where the state flag is flown.



Eton Manor, London 2012 Olympic and Paralympic Games

### Expo 2012 Yeosu, Korea

As a follow-up to the exciting projects at the Expo 2010 in Shanghai, NUSSLI will also be involved in Korea. For the Expo

2012 in Yeosu, Korea, NUSSLI will be constructing the Swiss pavilion for Presence Switzerland.