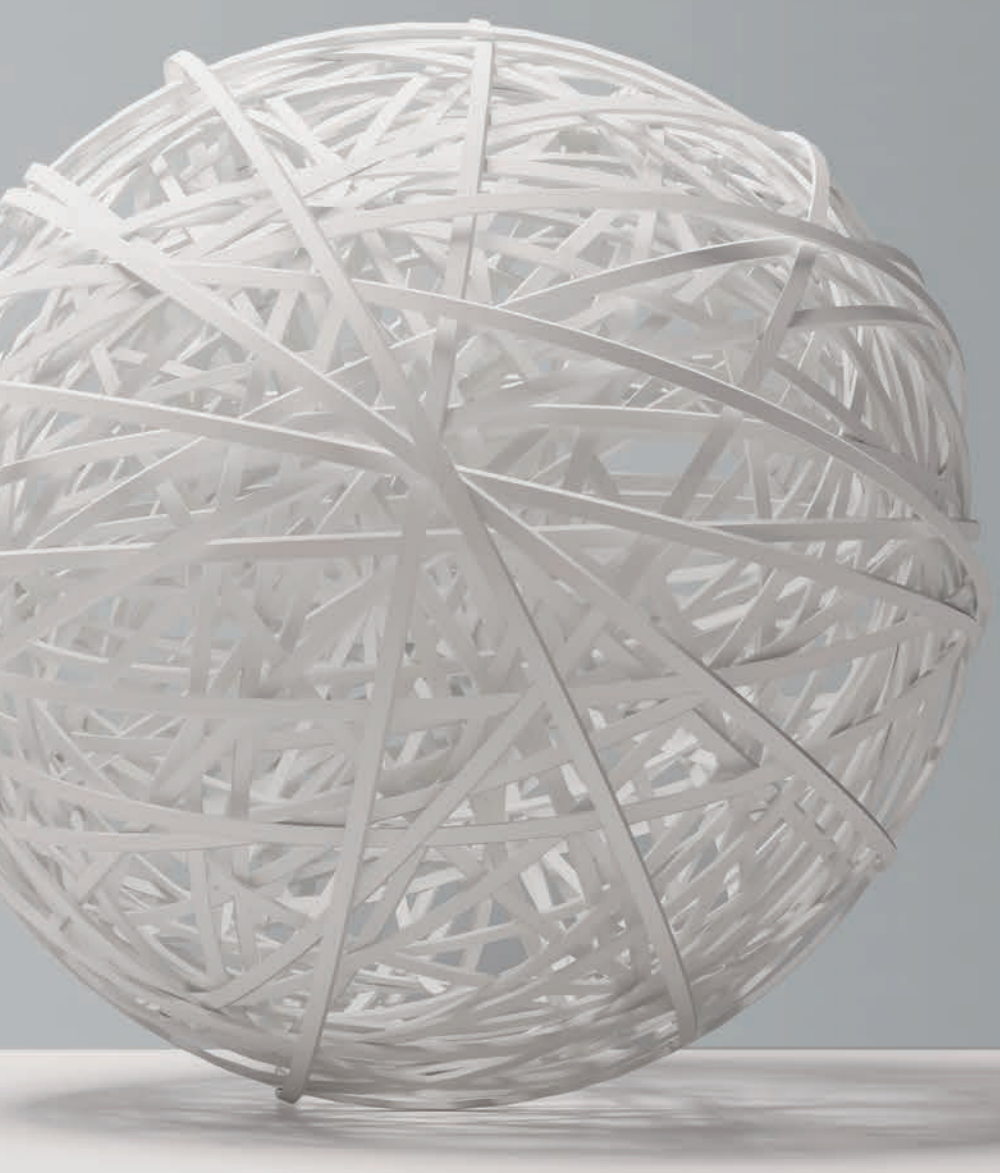
OCTA NEWS

02|2018

THE MAGAZINE FOR SYSTEM BUILDING SOLUTIONS



FLEXIBILITY – FOR GLOBAL SUCCESS.

Interview:
ITKE's Gundula Schieber on the materials of the future.

The launch into virtual worlds:
flexibility in the digital era.

Fiat lux:
OCTAmesh – light in a new dimension.

Pop-up hostel:
a flexible business model.

OCTANORM®

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VS. ROUTINE

Flexibility is vital.

The survival of all life on our planet depends above all on one characteristic: flexibility. Only those animals, plants and other forms of life which have been able to adapt flexibly to the continually changing conditions have enjoyed any success in the story of evolution. All that remains of the other life-forms is at best a few petrified fossils. These laws of evolution apply in the same way throughout the economy. Particularly in recent years we have seen how major players with successful worldwide operations have disappeared from the market virtually overnight – because the rules of the game changed dramatically and they couldn't respond flexibly enough.

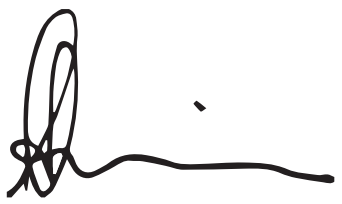
Never before since the dawning of the industrial era have there been so many radical changes over such a short time. However, globalisation, digitisation and the triumphal march of the internet are not only presenting companies with new challenges that have to be tackled with flexibility, they are also opening up completely new opportunities, particularly in relation to the tackling of pressing problems like climate change.

Ever since the company was formed, at OCTANORM we have never wasted time waiting for developments to happen. We have always want to be one step ahead of the game. That is why we have been providing our customers with digital planning tools for the last three decades, and soon we will enable them to immerse themselves in virtual worlds. With our OSPI network we have created a model of sustainability.

IDEA

But it's not just in relation to the major issues that flexibility plays a crucial role, it also does so in our day-to-day business. Our customers rightly expect us to always find an appropriate way of implementing their sometimes visionary ideas. And we don't let them down, because our systems are characterised by their exceptional flexibility. This is because they're not simply made up of standard components, the individual components of our OCTA series can be virtually entirely tailor-made to suit our customers' requirements.

In the new edition of OCTAnews we would like to examine the subject of flexibility from various angles. We want to present products and services to you which will increase the flexibility with which you can do your work. I'm sure that the second edition of our magazine will again contain some valuable suggestions and information for your business. So I hope you find it an inspirational read, and I'm already looking forward to the new, exciting challenges that we can flexibly tackle together in future.



Kind regards, Thomas Gräter,
General manager OCTANORM

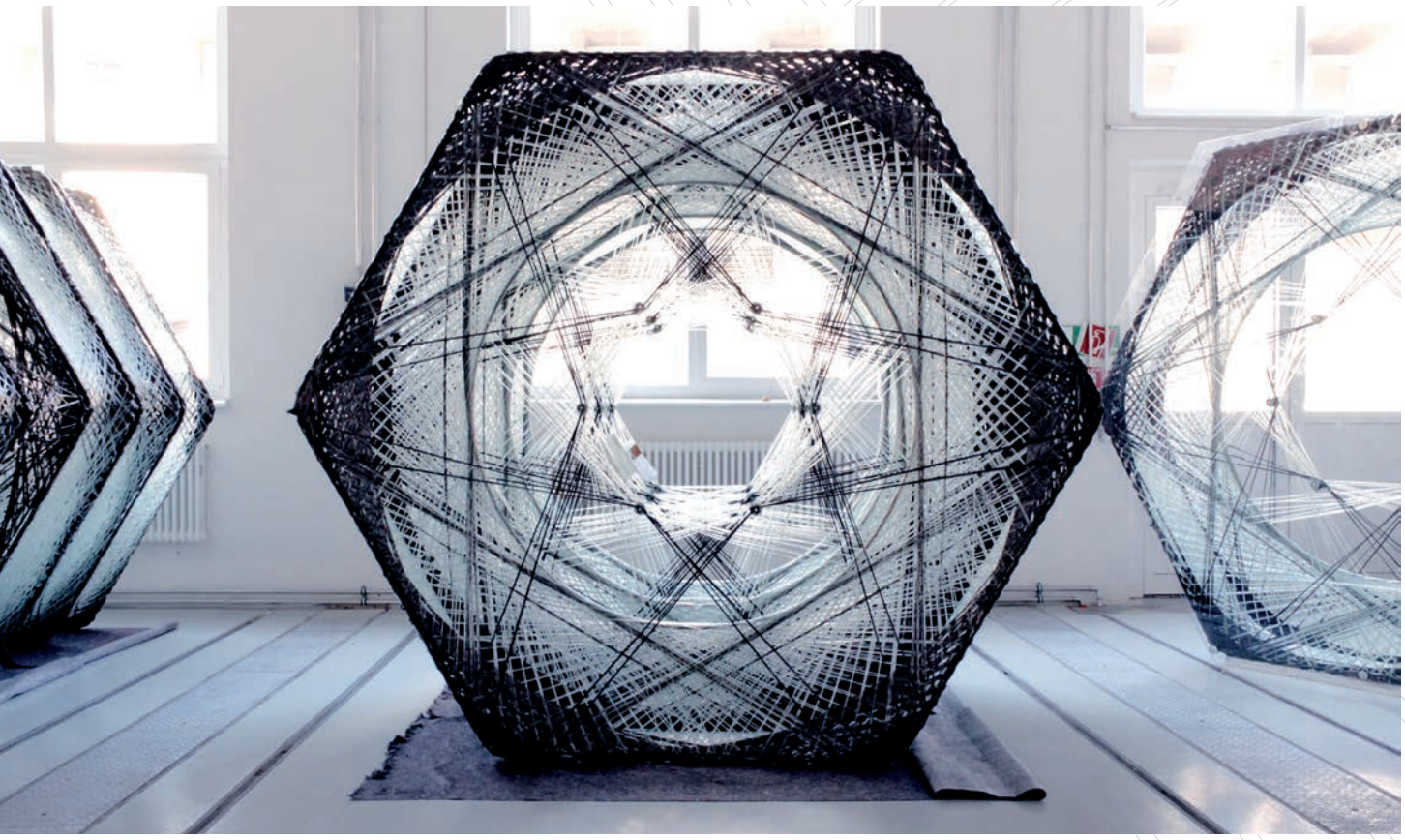
AT ITKE IN STUTTGART PEOPLE ARE THINKING ABOUT THE MATERIALS OF THE FUTURE.

"We've got to have a radical rethink."

Engineering graduate Gundula Schieber of the Institute of Building Structures and Structural Design.

In an ideal world, which materials should we stop using and which materials should we rely on more in future?
Architectural requirements are becoming increasingly complex, not only in relation to the construction of trade fair booths, but numerous different materials are now used to provide all the functions that are needed. Each material provides just one function. In order to reduce environmental impacts, we've got to have a radical rethink in this area. We've got to free ourselves from engrained, standardised design and construction principles and create new, long-lasting structures which can be recycled, and which use as few resources as possible. This means that materials should no longer be considered without taking account of aspects such as their shape, structure, space requirements and the environment, and we should instead create material systems which through the seamless integration of materials, structure and technology make it possible to build multifunctional, adaptable and also ecologically efficient structures.

We're all concerned with the issue of sustainability nowadays: what are the most sustainable materials in your opinion?
Everybody talks about sustainability, but the issue is so complicated, and at the moment it's at best only possible to make judgements about specific comparable products. But architects and engineers have recognised the urgency of this issue, and they are looking for new solutions for reducing the amount of resources used and the amount of waste that is created. In my opinion some of the interesting developments are to do with the production of components that have differing material properties for different functions. Their properties, e.g. hardness, constant change, at least in one dimension. This means that the internal structure of a component is ideally suited to the local requirements, and only the amount of material that is actually needed is used. For example, 3D print technologies can already be used for the production of small-scale, homogeneous, graded structures.



Robotic spinning process:
Cellular modules – spun from resin-impregnated glass and carbon fibres: minimal use of materials due to the optimised arrangement of the fibres and the minimal mould production that is involved

Illustration: ICD/ITKE University of Stuttgart (Germany)

INTER-VIEW

Specialist discipline: bio-inspired bending mechanisms: Since 2012 ITKE's Gundula Schieber has devoted herself to work on pioneering materials.

Excellent references:
Engineering graduate Gundula Schieber first "won her spurs" working in an architects' office, and she picked up several architectural awards.

"In order to break out of engrained structures, we often use nature as a source of inspiration."

Gundula Schieber on flexibility.

Everyone's talking about a digitised world, but does digitisation have an effect on the materials that will be used in future?
Today materials like steel are still predominantly used which have a uniform material structure and easily described mechanical properties. This could change in the future due to digitisation. The introduction of computer-assisted planning, simulation and production procedures means that materials with more complex mechanical properties can now also be designed, simulated and manufactured. As already mentioned, this might, for example, enable structures with subtly differentiated grading to be created.

At the institute where you work exciting developments are taking place in relation to bio-based materials. Can you outline for us what the benefits of these materials are?
At the institute we've been working for a number of years on the development of bio-based plastics. These bio-plastics combine the advantages of conventional oil-based plastics with those of naturally occurring raw materials. Ideally this will enable self-regenerating raw materials to be used as the basis for developing materials which are easily moulded, and which can be burned or composted once their useful life is over without producing any impact on the climate. Compared to glass, bio-plastics make it possible to produce lightweight transparent components of low thermal conductivity. As in the case of fibre-reinforced plastics, the incorporation of natural fibres will enable the mechanical and thermal properties to be optimised.

So are bio-based materials already suitable for everyday use, and where can they best be used?
For some years now the packaging industry has been exploiting the bio-degradability potential of bio-materials. Foil, disposable cutlery and yogurt containers are already being made from compostable bio-plastics. Due to the ease with which they can be shaped as well as their lightness, bio-based materials are also increasingly being used in the car industry. However, we've still got a long way to go before bio-plastics are in everyday use in architecture. And developments in this area always have to be critically examined. Using a self-regenerating raw material doesn't always lead to a sustainable product.

Your institute's website talks about intelligent materials, but what exactly are they?
Architecture is subject to continually changing requirements. Both the external climate and users' wishes are constantly changing over the course of a day or year, or throughout the building's service life. Nevertheless, most of the structures that we currently build are rigid and immovable. There are only isolated and very simple examples of adaptation, e.g. in the case of movable solar shading louvre systems. However, these systems consist of numerous individual components together with external electrical and mechanical actuators and/or positioning motors. This results in a highly technical system with corresponding maintenance requirements as well as high costs and high levels of energy use for the functionality that is provided. Therefore a key aim of our research is to develop resource-efficient, multifunctional material systems which can be efficiently adapted in line with the changing external conditions and the internal usage requirements.

The theme of our magazine is flexibility: which materials will enable us to become even more flexible in future?
Current materials research shows that with the aid of digital manufacturing methods innovative and adaptable structures can be built from a variety of basic materials. At the institute we've already been investigating the potential of fibre-reinforced composite materials in architecture for some years now. Research projects in this area have shown that fibre-reinforced composite materials can be used to develop efficient, sleek and pliable shading systems with built-in pneumatic actuators which can be optimally adapted to suit the sunlight conditions. Whereas conventional systems soon reach their limits when used with complicated facade configurations, these systems are highly adaptable thanks to their parameterised differentiation.

Robots have been used in your projects such as the Elytra Filament Pavilion: what role in the development and use of materials will people still have in future?
Robotic production processes open up completely new opportunities for us. But innovations are only produced in this area if different disciplines work successfully in close collaboration right from the outset. In order to create new structures that are suited to the materials used and adapted to local circumstances, jointly integrated data models and continuous process chains have to be developed. So in future the architect won't design the final shape anymore, but he will develop processes. In my view the most important point is to see these new technologies as an opportunity and not as something that constrains my creativity.

Assuming that you and your students were able to design a trade fair booth exactly as you wanted to, what might it look like and which materials would you like to use for it?
Our aim is always to use demonstrators to investigate and highlight the innovation potential of new technologies in architecture. In order to break free from engrained structures, we often use nature as a source of inspiration. So, in the past a trade fair booth has already been built for the University of Stuttgart in cooperation with Prof. Achim Menges' Institute (ICD). Industrial robots were used to spin an efficient bio-inspired lightweight structure made of fibre-based composite material with no core. The modular trade fair booth can be packed up into a very small space for transportation, and it can be set up in numerous different designs. The highly differentiated fibre-based composite structure produces a novel and very expressive design which has created a real stir, for instance at the Hanover Trade Fair in 2015.

Ms Schieber, thank you for this interview!

You can find out more about the research work undertaken by Ms Schieber and her colleagues at: www.itke.uni-stuttgart.de.

At home in both worlds:
In his job Günther Schweyer travels through fascinating virtual environments, but away from work he also loves to relax on the sofa, especially with an "analogue book".

Stand planning 2.0

Günther Schweyer is s responsible for developing and providing support in the software department.

The past was inflexible.
Günther Schweyer is not nostalgic about the past when it comes to work matters. He well remembers the time 20 years ago when highly complex plans had to be painstakingly drawn up by hand for customers – and then things needed to be changed. In the best-case scenario this involved hours of manual drafting. Larger changes took several days. Which is precisely why he enjoys the digital era. Nowadays with the aid of the OCTAcad design software the plans are set up in 3D straight away, changes are made in an instant, and even the presentation of stand variants or changes in materials takes little extra effort.

For him, the software which he is responsible for planning – as well as providing support services – must be as specific as the customers and their needs. Is it a large or small company? Is a modular display stand planned, or is a conventional design required? What administrative tasks have to be carried out as part of the project? In OCTAcad and OCTAdesign he has two specific programs which give him the flexibility to cope with any demands. "With OCTAdesign the user can simply and quickly plan a draft design for a stand and provide a photo-realistic demonstration of it". The software can also be used for other tasks. For instance, OCTAcad helps with the compiling of parts lists. This is because in Schweyer's view the software has to provide the most comprehensive support possible with planning work, and it must simplify our day-to-day work and minimise errors.

The future is virtual.
Like most tech-savvy people, Günther Schweyer is enthusiastic about virtual reality. He is sure that this is just the start of a hugely exciting development which will provide a lot more flexibility. At the moment he is on the lookout for the system and the platform which will provide the greatest benefits for the exhibition booth builder – and which can be used by any operator. His favourite among the competing systems is mixed reality, which he expects to become the dominant technology in the near future. He is eagerly following the current developments at high-tech companies like Google and Microsoft because he thinks they are about to make a breakthrough in their mastery of virtual worlds.

Multi-tasking talent:
At OCTANORM Lisa Schwarze increases the flexibility of the planning process. She becomes more flexible every day by using her smartphone which she is very fond of.

FLEXIBLE

"It's just the deadline which isn't flexible."

Lisa Schwarze from the Project Department is adept at using the art of multi-tasking when it comes to planning.

A job which requires responsiveness.
Making possible things which seem to be virtually impossible, that's Lisa Schwarze's job description. She reveals to us that customers' wishes have become more and more specific over the years, so the people responsible for satisfying them have to be highly flexible. Ms Schwarze sits at the interface between several internal departments, reason enough to be good at switching quickly between different tasks. Whilst she is immersed in one project, a task emerges in a completely different area for which a solution is immediately required. The OCTAcad software provides her with the necessary flexibility. Thanks to the wide selection of profiles, it gives her the necessary flexibility when drawing up the plans to implement new ideas and make changes at the drop of a hat.

Timing is everything.
The entire Project Department prides itself on satisfying customers' wishes, even if the deadline for doing so is "yesterday at the latest". Even then, all the stops are pulled out to find a perfect solution which satisfies all the requirements. The most challenging task so far for Ms. Schwarze was planning four trade fair exhibits for the company Expovision in Bulgaria, which subsequently led to an order for a new, fifth trade fair exhibit. Based on the customer's outline designs and floor plans, the best OCTANORM system for the job was suggested. In this case it was the OCTAwall 40. It enabled the task to be completed on time – to the great satisfaction of everyone involved.

We also asked Lisa Schwarze which project she would personally like to carry out, and she told us about her dream of a sustainable mobile home made of extrusions. It is intended to be flexible enough to be assembled and then dismantled anywhere in the world. The world tour starts in Columbia, and who wouldn't like to be part of it?

A QUANTUM LEAP IS ABOUT TO TAKE PLACE IN TERMS OF FLEXIBILITY.

The launch into virtual worlds.

How digitisation is making our work more efficient.

For years now the term "virtual reality" has kept cropping up in the media. Soon what sounds like a paradox, "an unreal reality", will actually revolutionise every area of our lives. There are a number of competing technical approaches. At the moment "augmented reality", which some people call "mixed reality", is a hot topic. It first caused a stir in the summer of 2016 when the streets and pavements were filled with young people who were "glued to" their smartphones. They were using its camera to observe their real surroundings where – if they were lucky – a virtual Pokémon would pop up.
This is because AR is about adding another layer to the real world. And that's much more than just a gimmick. This technology, which is being taken forward right now by technology leaders like Oculus, Microsoft and Apple offers great benefits for our everyday lives. For instance, it won't be long before it will direct you to the booth you're looking for at a trade fair, and you'll have exhibits pointed out to you which you may otherwise have overlooked.

The world of trade fairs seen through VR glasses.
VR glasses are recommended for professional use when designing trade fair booths. These special glasses cover the observer's field of sight and have a monitor close to the eye. If the observer moves his head, the image before his eyes changes according to the movement. This opens up unimagined new possibilities for trade fair exhibitors and trade fair architects, but also for shop owners. Even before the first panel has been installed, the client can get an absolutely realistic impression of what his trade fair booth will actually look like. Changes to it can be made very easily in real-time. And that's by no means all there is to it: shopkeepers can invite customers to take a tour of their shop even if they're hundreds of miles away. Two factors are mainly responsible for the fact that these developments are taking off right now: you can already buy the whole system, including the PC or notebook and VR glasses, for under € 3,000, and in order to acquire the knowledge that you need to create a virtual reality environment, you now just need to go on a two-day course.

OCTAdesign opens doors to the virtual world.
For trade fair designers and architects we have designed an intelligent, versatile plug-in for Autodesk 3ds Max.
OCTAdesign will in the future also provide a perfect basis for all VR applications. It already provides photo-realistic presentations of spatial arrangements and trade fair booths. Its efficiency and speed makes OCTAdesign a benchmark for the whole sector. The plug-in is system-independent, and OCTANORM components as well as other system suppliers' components can be used to plan the trade fair booth. Even the integration of conventionally constructed modules is a simple matter. This means that before VR is introduced users have a solution that will provide them with perfect results quickly and efficiently. The outstanding feature of OCTAdesign is its intuitive user interface which makes it easy to operate, even for beginners. Smart modules ensure that even unusual wishes like illuminated walls, fillings or glass can be easily implemented. You can rent the software for as long as you need it – software subscription periods of 3 or 12 months are available. There are specifically customised courses in order to ensure that you can actually make really efficient use of OCTAdesign. A remote support service is provided for answering any other questions.

Virtual Reality:
It's not long before we will be moving quite naturally through virtual worlds, and not only that, we will also be able to change these worlds in real time.

OCTAcad, the gold standard when it comes to planning software.
Ground-breaking ideas usually come from the companies with the longest experience. It's now over 30 years since OCTANORM unveiled its first version of OCTAcad. Nowadays it sets the standards for design software in the trade fair sector. All the users, from trade fair constructors to architects can benefit from it in their day-to-day work. Whether it's the planning, design, optimising or the administration of trade fair projects, OCTAcad provides increased efficiency and flexibility at every stage of the work. Numerous well-thought out functions facilitate operations and therefore increase the workflow. OCTAcad has been exclusively developed for planning tasks using OCTANORM components. It includes functions which make planning operations more convenient: for example, a complete parts list can be directly generated from the drawing. You can also subscribe to OCTAcad for as long you need it, and the 3-month subscription is recommended for temporary assignments. For everyone who regularly works with OCTAcad there is the 12-month subscription. Naturally OCTANORM also supplies all the necessary know-how in this case, from the training to the remote support.

What's next?
It's almost always the case with technical developments that they turn out very differently from how most experts predicted. But there's one thing you can be sure of: the future will bring undreamt-of new possibilities. And OCTANORM will provide its customers with the software they need to get the most out of the new technologies.

PROVIDING PERFECT SOLUTIONS MEANS BEING CLOSE TO YOUR CUSTOMERS.

Flexibility made by OCTANORM.

The heart of OCTANORM beats in Filderstadt.

An eye for detail:
All our employees have comprehensive expertise as well as years of experience behind them in their job.

Delays and failures are not allowed in the trade fair construction business. The best solution must always be provided for the customer as quickly as possible. Our company is based in Filderstadt in Germany. The transport hub of Stuttgart with its airport less than 15 minutes away from us by car means that we can be with our clients anywhere in Germany whenever they need us. Embedded in our philosophy is the principle that we operate in partnership, and on an open and equal person-to-person basis. If only for that reason, being close to our customers is immensely important to us. And it's our ambition to offer our customers not only excellent products but also tailor-made solutions which are economic and which make no compromises when it comes to quality.

Because great ideas are often beyond the limits of any standard.
As a leading brand in the trade fair systems building market, we can naturally be expected to supply standardised solutions which are of consistently high quality. But it's precisely the ground-breaking ideas which often require forms of implementation which go beyond any DIN standard. That's why virtually all our products can be custom-built to be exactly as our customers want them. The length of the longest profile we've made was 7 m.

We try to make everything possible, not just in terms of dimensions but also in terms of the colour scheme. So our frames can be powder-coated either in CI colours or to match a company's own product line. This applies to all our systems, from OCTAwall, OCTAlumina through to OCTAmesh or Maxima, and of course to combinations of different products. Since our employees have all-round know-how in relation to the use of the materials, they always find the best solution for each set of tasks. Our modern machinery ensures that the manufacturing processes are sped up and the delivery periods are shorter.

Naturally in tune with environmental requirements.
One of the great advantages of system building is its sustainability. The individual components can be used repeatedly in ever-changing designs. And at the end of a long product life they can be fully recycled, because we use aluminium. This material is not only inherently stable and versatile, it's also available in sufficient quantities on our beautiful planet. Aluminium is the third most common element after oxygen and silicon. The responsible use of valuable resources is a given for us, as well as our obligations to later generations.

We are present wherever our clients need us.
OCTANORM has operations in over 150 countries around the world in order to provide services for its customers. In addition, in OSPI we've set up the largest trade fair network in the world. We have over 140 local partners for our customers in more than 50 countries. We can therefore guarantee that no matter where they are, they can depend on Filderstadt quality. Parts are stored or delivered where they are needed so that no time is wasted, but the projects can be conveniently planned in the home country. This provides maximum flexibility.

Up-to-date processes:
OCTANORM'S pioneering systems are the product of team work. By working together we find the perfect solution for even the most complicated challenges.

OCTAWALL

The new lightweight champion.

Perfection begins with the listening process.

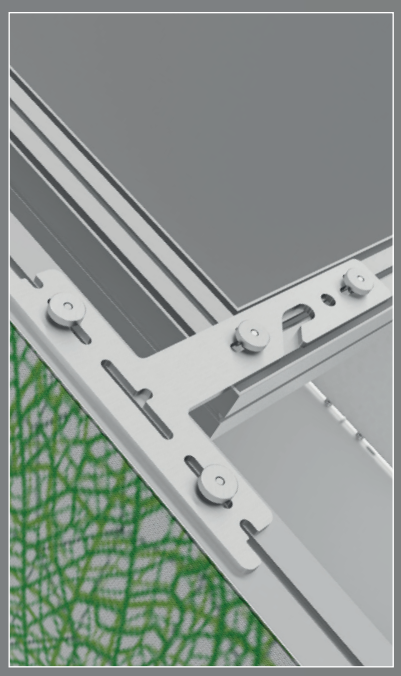
The enhancement of our products is an area where we try not to anticipate our customers wishes. We prefer to ask them directly what they think is good, and what could still be improved. That's also what we did in the case of OCTAwall 40. The enhancement of it was based on a comprehensive survey of customers and licensees. The first thing that we found out from this was that the version with a 40 mm profile cross-section is very popular. We focussed entirely on this with the result that today we can offer a product that satisfies all customer requirements.

More convenient: the interlocking system

The new OCTAwall 40 toolless is especially light and can be dis-assembled into small parts. Thanks to an intelligent interlocking system it fits easily into a carrying case. All the individual parts are stored in a maximum lengthways space of 1.3 m, so you can be sure you've not forgotten anything. It's not just transportation that's made easier, the unit can also be set up in next to no time. And you don't need any tools.

Greater stability: the base plates

For small booths there's a swivelling plate, while larger booths rest securely on a large plate.



More options: Cubicle

The new OCTAwall 40 enables you to build complete rooms, including the ceiling. There's a new connecting piece to help you to do this. And it even enables you to add on side walls afterwards in any positon you want – even if they weren't included in the original plans. The walls which are fitted with the acoustic insulation material create an oasis of calm in the turmoil of a trade fair.

40

OCTAwall 40 has ideal dimensions:
The standard frame has a dimension between axes of 950 mm. This applies to the W 906 profile for fabric and panels, and to the M 1307 for fabric. In curved form as a ready-made frame component, the dimension between axes is 495 mm.

More good prospects: OCTAsketch

The OCTAsketch software provides the user with fast, comprehensive planning assistance that enables him to adjust his plans quickly and easily. Additional inspiration is provided by a comprehensive library of illustrative stands. So that users of any platform are able to benefit from this, the software is web-based so that it can be operated on any computer.

Increased pulling power: the magnetic brackets

One version of the OCTAwall 40 is fitted with magnetic brackets. Small magnets with spacers can therefore be incorporated into the substructure and be used to hold fittings and panels in place on the other side of the material.

More versatility: the all-purpose door

The new all-purpose door has really earned its name, it is DIN-compliant both on the left- and right-hand sides, and it can be installed so that it opens either inwards or outwards. Because the all-purpose door comes with the frame as a completely prefabricated part, it can be directly combined with other frame components or supports. So a single door opens up a full range of options.

THANKS TO AN OVERNIGHT TRANSFORMATION:

A conference centre turns into a hostel.

The dream of adjustable capacities.

Affordable beds:
It's especially young people on a limited budget who particularly appreciate Mr Wienecke's concept.

Flexibility is at a premium in the hotel industry more than almost anywhere else. That's because there are extraordinarily big fluctuations in usage. The main peak demand periods are of course during the international trade fairs when people from all around the world are looking for suitable accommodation. During the International Consumer Electronics Unlimited trade fair in Berlin, the Leipzig book fair, or Agritechnica in Hanover, hotels of all categories are literally bursting at the seams. But they're not the only events which suddenly drive up demand. Up to now many visitors had no alternative but to look for somewhere to sleep miles away because all the local accommodation were booked up.

Ready for bed quicker:
In a single 24-hour period a modern conference centre is transformed into an inexpensive hostel containing 500 beds.

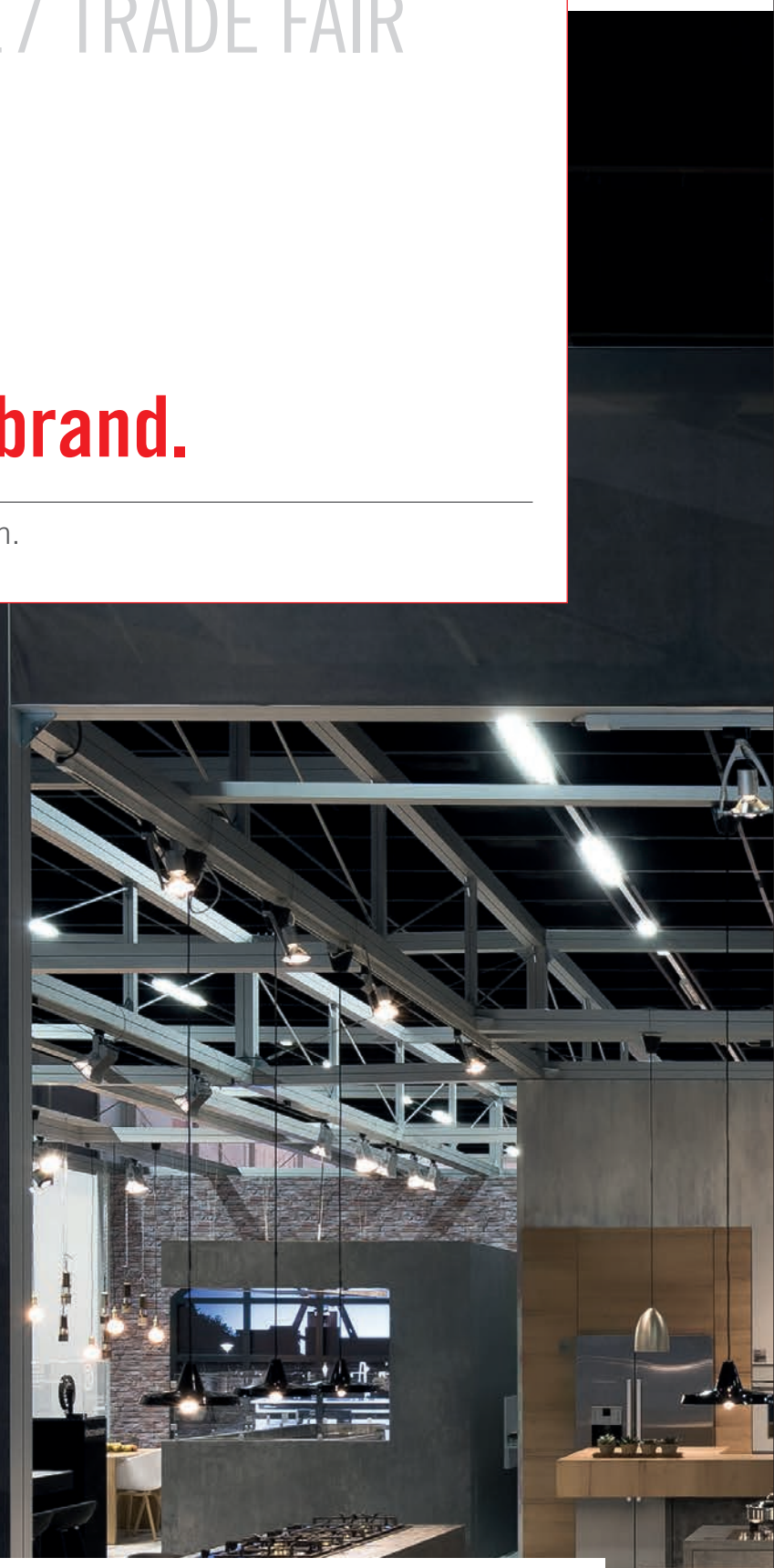
But this gave one entrepreneur a crazy idea. Hotel owner Andreas Wienecke always provides extra capacity when it is required. His Wienecke XI. designer hotel in Hanover has a conference centre attached to it. As the centre is used less when the major events are on, he uses a 1000 m^2 conference hall in which to set up sleeping compartments. This enables him to provide 312 extra units of comfortable overnight accommodation. More beds and sleeping compartments are set up in smaller conference rooms so that in periods of peak demand a total of 500 extra beds are provided. And that doesn't just happen during the major international trade fairs, it also happens in connection with major sporting events and concerts. When former US President Obama came to visit, Wienecke ensured that 300 police men and women were properly rested before undertaking their responsible duties.

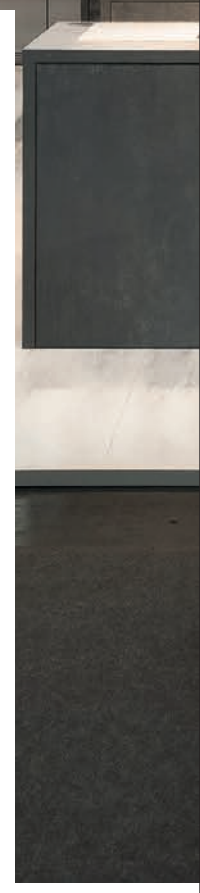
OCTANORM ensures that everyone gets to bed quickly.
When it comes to quality, Mr Wienecke takes no chances, he relies on the leading system manufacturer. For the sleeping compartments and beds he uses the standard components provided by OCTANORM. Not only due to the high quality of the materials, but also because the materials facilitate fast assembly and disassembly. In just 24 hours the OCTANORM parts provide up to 500 new units of overnight accommodation. Dismantling the accommodation takes less than half as long.

GLITTERING APPEARANCE BY KÜPPERSBUSCH AT THE LIVINGKITCHEN 2017 TRADE FAIR IN COLOGNE.

An iconic German brand.

OCTANORM for Küppersbusch.





From the Ruhr to the international elite.
The Schalke 04 football club and the Küppersbusch kitchen implements manufacturer have raised the worldwide profile of Gelsenkirchen. They are both based in the Schalke district of the city. And Küppersbusch's history goes back even further than the longstanding sports club's. The company was founded in 1875, since then it has repeatedly attracted plaudits for a series of pioneering developments which have been milestones for the sector as a whole. For instance, the high-speed hotplate is an integral part of the economic miracle just like the legendary Volkswagen Beetle. As one of the pioneers of sustainability, in 1985 Küppersbusch installed the environmentally friendly öko-therm® technology in its ovens and cookers. What really sets the Küppersbusch equipment apart is its trendsetting design. This has already earned it more than 60 major international prizes. And it was why in 2016 the company was inducted into "The Major German brands" Hall of Fame.

LivingKitchen – the kitchen industry summit.
All the big names in the world of ovens meet up in Cologne every two years at the LivingKitchen trade fair. The last international kitchens' event held here in 2017 opened with 200 exhibitors from 21 countries and drew in a total of 150,000 visitors. In order to really stand out against the top quality competition, exhibitors have to set the highest standards in terms of innovation and design. This is after all the leading trade fair for the whole sector where the most important world premieres and the most ground-breaking ideas are celebrated.

Design.
The Ruhr, the area where Küppersbusch is based, is characterised by its mines. Even in 2018 when the long history of mining finally ends, these industrial heritage sites will still be a dominant feature of the region. The Zollverein Coal Mine is included in the prestigious list of UNESCO World Heritage sites as the outstanding monument of its era. It's some time since coal was last mined here, instead it provides a rich seam of art and culture. Küppersbusch identifies strongly with its geographical roots, so this iconic design also formed the centrepiece of its trade fair booth at Living-Kitchen 2017.

OCTANORM for Küppersbusch.
Another feature of good design is paring things down to what is essential. The Küppersbusch booth at LivingKitchen is impressive due to its clear, sober design. Flexibly used lighting creates the right ambiance. And this is where OCTANORM comes into its own. The ceiling of the stand is made of OCTANORM components. The standard components made of aluminium blend perfectly into the overall design, and they form an exciting contrast to the other materials that are used. The overhead metal struts enabled the lights to be installed in just the right places where they highlight the details that matter. And because the Küppersbusch products really caught people's imagination, the display in Cologne turned into a high-profile international success.

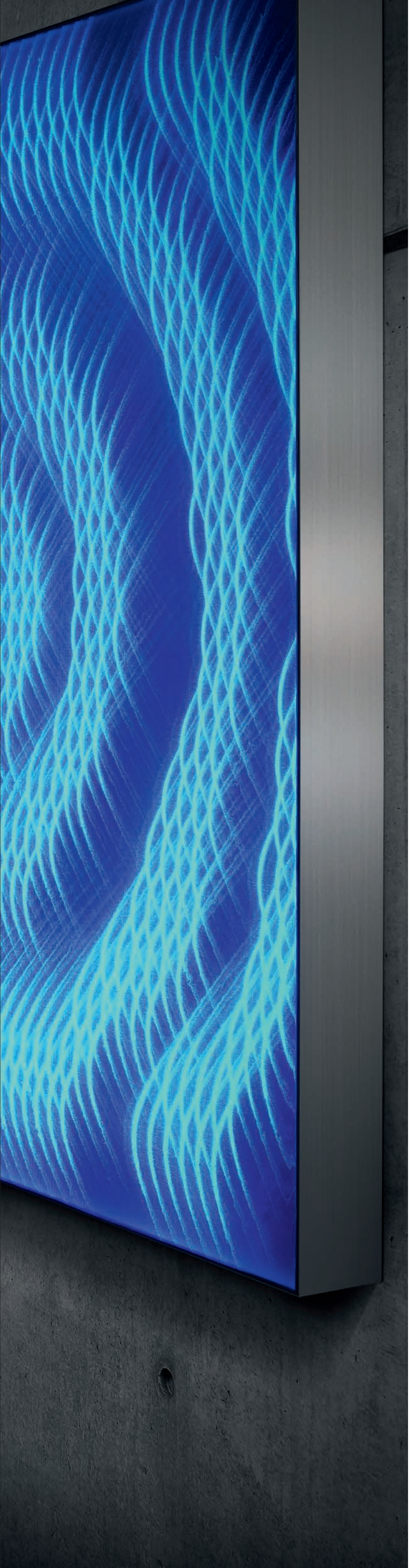
OCTA MESH

Light in a new dimension.

Endless possibilities. Visionary effect.

The eye of the beholder.

Sight is human beings' guiding sense which we use to find our way around the world. The eyes account for 65% of our brain's activity, more than any other part of the body. There are numerous images competing for our attention every moment, and over a lifetime humans take in an average of 24 million images. But only the most striking ones are actually retained in the memory.



Made to leave a lasting impression.
The OCTAmesh illuminated frames add a new dimension to light. This is down to their brilliantly smart design. Inside the frame there are hidden light sources which are bent by a special fabric to form a unique arc of light. This provides an impression of three-dimensionality which alters depending on the angle and distance that it is viewed from. OCTAmesh magically attracts people's gaze, especially in environments where people are subject to a host of visual stimuli. Such situations include trade fairs, retail outlets, and exhibitions.

Fabrics which provide topics of conversation.
OCTAmesh comes in two versions of fabric. In the case of OCTAmesh lux the individual points of light can be seen even from a long distance away. The fabric as a whole produces a thinner arc of light. The material is available in white, black, anthracite or red, although the colour of the material is only apparent when it is not illuminated. The other version is called OCTAmesh miracle. The remarkable thing about this is that the dots of light coalesce into a broad arc, and the light structures seem to come from nowhere. This makes them seem even deeper and more three-dimensional.

It leaves a lasting impression:
The three-dimensional effects of OCTAmesh miracle are a real head-turner at any event.

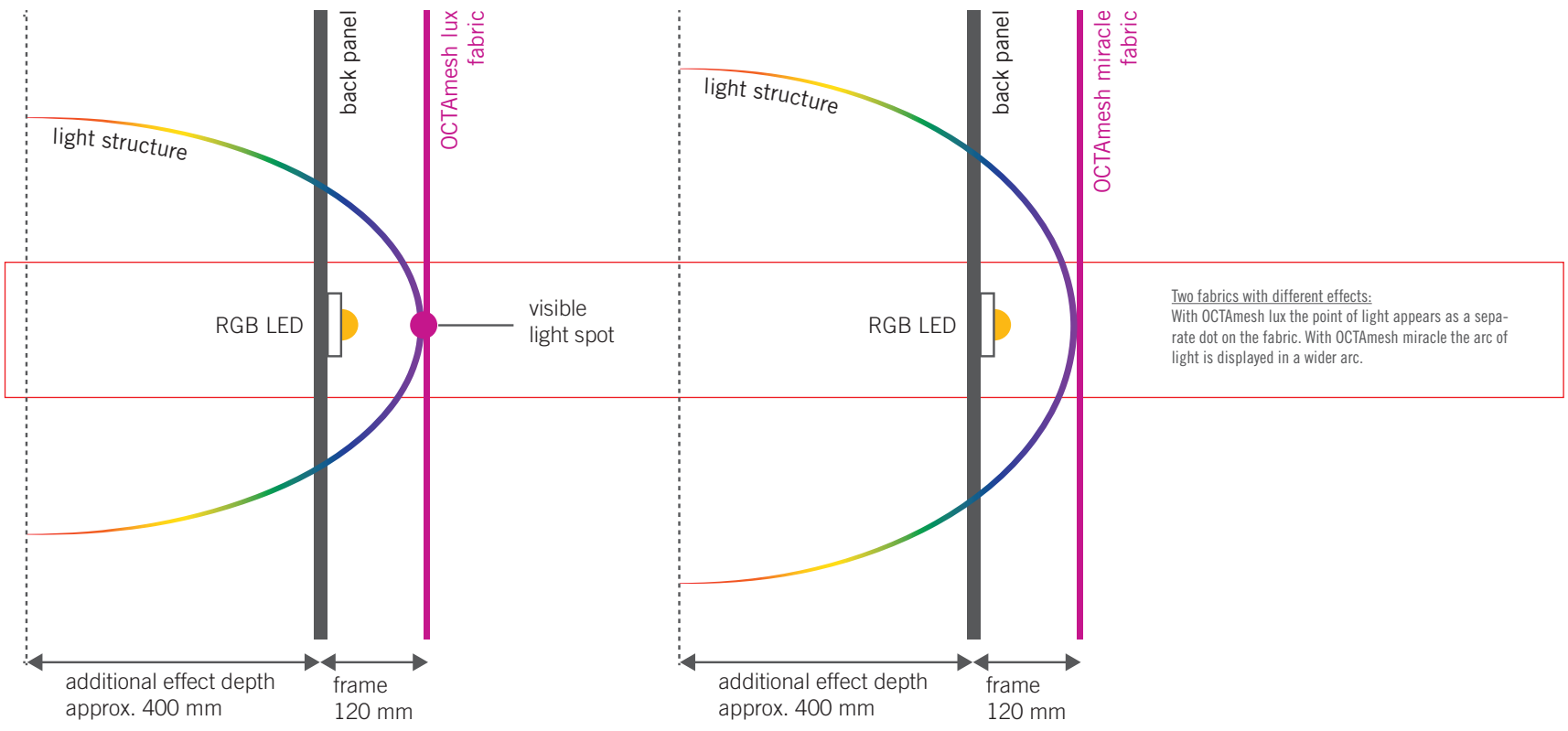
MINIMAL EXPENSE, MAXIMUM EFFECT.

Flexible settings.

OCTAmesh comes with standard effects, or it can be provided with specific effects, depending on what is needed. OCTAmesh lux and miracle are fitted with diagonal LED strips. In the case of the specific solutions that can be manufactured on request, virtually anything is possible from X shapes to diagonal lines and strips of light. Naturally the dimensions are highly flexible too, and in addition to the usual sizes of 841 × 1189 mm, 950 × 2480 mm and 1900 × 2480 mm, tailor-made sizes can also be produced. And that's not all: On request, the frame profiles can be manufactured in any available RAL colour, just to suit the specific company or occasion. No matter which solution you decide on, with OCTAmesh you will always be the centre of attention.

Flexibility in use.

Plug-and-play enables OCTAmesh to be installed in next to no time. The lighting and electrical systems are pre-assembled and ready to plug in. The only other thing that you need for installation is a free plug socket. The illuminated frames are provided with dimmable RGB LEDs as standard. It's never been easier to make your event and your company the centre of attention.



THE MATERIAL DREAMS ARE MADE OF.

Conversation with Dr. Oliver Maetschke, Director of ETTLIN.

Director and COO of ETTLIN AG
Dr. Oliver Maetschke is a mechanical engineer and he studied textile technology at the famous RWTH Aachen University.

Ettlin has now been researching the materials of the future for 10 years, how did this come about?
For over 180 years now our company has faced a series of constantly changing challenges. It is purely thanks to our adaptability that we have managed to survive in what is after all a relatively difficult market environment. Today we are driving change forward through strategic development processes, and we are moving into pioneering fields. The starting point for the development of our light-sensitive ETTLIN LUX® special fabric was, among other things, the question of how light can continue to be combined with textiles in future.

The theme of our magazine is flexibility: what role does it play as far as you are concerned?
Flexibility is an important quality of our products, especially design and processing flexibility. In principle we "only" sell the material of course. The designer himself, whether a lighting designer or an interior designer, decides how the material is to be used and which ideas he wants to convey with it. We do our best to help him, e.g. by providing new designs or types of material. And of course, there's a high degree of flexibility in our production processes as well. Our machinery is state-of-the-art and designed to ensure the flexibility of our production processes.

We do everything that we can to ensure that we can offer our customers a high degree of flexibility and quick response times.

What is remarkable about your miracle and lux products?
To start with, the unique lighting effect of course. Our fabric interacts with LED light. When light is shone through it, each individual dot of light produces optical effects which are propagated throughout the room in the form of curved lines of light. The bodies of light that are formed in this way – in this context we call them light structures – exhibit strong 3D characteristics.

What is the basis of the partnership between ETTLIN and OCTANORM?
We are really delighted that we have managed to persuade OCTANORM to market ETTLIN LUX® on a worldwide basis because we recognise that it is the leading specialist builder of sophisticated trade fair and interior furnishing systems as well as presentation systems. Our fabric with specialist lighting properties is used more and more often in these fields. Using the fabric in conjunction with the OCTANORM aluminium frame means that we can now offer clients around the world a high-quality solution.

Which projects are you currently undertaking which will really wow audiences?
The project with the lighting artist rosalie at the Hamburg Elbphilharmonie orchestra was really something very special. Not to mention our collaboration with BMW at Lenbachplatz in Munich and with the BMW Museum in Munich, which in our view are "standout" projects. We recently received an enquiry for the Oscars ceremony. That really would be another superb stage for ETTLIN LUX® to perform on. It's a project where we'd love to collaborate with OCTANORM.

Naming system.
The standardised naming system that we use, including the prefix OCTA®, means that the illuminated frames made of special ETTLIN fabric can be obtained from us under the product names of OCTAmesh lux and OCTAmesh miracle.

International exchange activities.

OSPI issues invitations to its 17th worldwide meeting.

OSPI Meeting 2018.
What better venue could there be than the rainbow nation of South Africa for an international meeting involving participants from dozens of countries? Since time immemorial people from all around the world have been meeting here to swap ideas and to embark on new ventures. South Africa owes its particular attractiveness to its fascinating landscapes, its natural parks that are rich in wildlife, and not least to its excellent cuisine and vintage wines. This is more than enough to produce a sense of anticipation among the participants of our OSPI meeting. The event which takes place every two years is being held for the seventeenth time in 2018. At the last get-together in Canada in 2016 there were 211 people from 32 countries taking part, and we are anticipating a similar level of demand this time round.

Expanding the network.
Of course the meeting is not just about spending a couple of unforgettable days in one of the most beautiful spots on earth. Indeed, we are also hoping for a whole series of important initiatives for the future of OSPI to come from it. Above all, the aim for us is to actively expand our worldwide network. It now includes partners in almost 50 countries on 5 continents. Each of them has its own unique, comprehensive know-how. In order to ensure that everybody can benefit as a result, it's important for people to give each other support and advice in South Africa. In the course of workshops the aim will be to develop strategies and initiatives that are based on innovative and forward-looking thinking.

Programmed for success.
Since the intention is that in the future everyone – and not only those attending the meeting – should get more heavily involved and simultaneously derive additional benefits from OSPI, we want to set up a whole series of forward-looking programmes. These include the OSPI Mentorship Programme, social media in general,and our international exchange programme and OSPI exchange, which we think is particularly promising.

OSPI exchange programme.
This worldwide exchange programme for OSPI members will provide us with completely new insights and ways of looking at issues. Two exchange options are being considered. A short one which is project-based and is intended to last between 2 and 4 weeks, and a more intensive one which is carried out via job assignments and is designed to last for a period of between 3 and 6 months. The programme is intended to include the swapping of experiences and ideas, and to build global links for the participants' mutual benefit. And it's about discovering common ground in different cultures, and recognising differences.

OSPI NEXT GENERATION.

Taking on new challenges.

The Next Generation at the Cape of Good Hope.
At the OSPI meeting in South Africa the focus will be on the up-and-coming generation. One of the most important tasks of this dynamic group of particularly dedicated OSPI members is to keep the OSPI idea alive in between the international meetings. And that means: absolute reliability. No matter where in the world a trade fair project is being undertaken, you can be sure of finding a good partner there who will carry everything out according to the plans that have been drawn up in your home country. You will find a partner who has the necessary know-how in relation to the distant market, and who will point out the special features that need to be taken into account to ensure that everything runs smoothly. The network's main resource is knowledge. OSPI Next Generation ensures that all the partners will also be able to benefit from this in generations to come.

The creators of the next generation.
Before the big get-together started, we had a brief opportunity to gather the opinions of two important Next Generation figures. Paulo Butters, from Archex in Montreal is one of the real assets of the network. He loves the idea of sharing what OSPI is based on as well as the reliability that it makes possible in his ambitious projects around the world. Butters recommends that all the participants should be absolutely open with each other, and he encourages them not just to talk about their successes but also about the things that haven't gone well. This is because there's a lot to be learned from this as well. He's particularly pleased that the collaboration now also involves discussion of new hierarchy levels. Meanwhile, there's now not only a lively exchange between proprietors, but equally among their employees as well. Lena Zeissig from the prestigious exhibition stand builder, ZEISSIG, in Hanover also plays an important role in the OSPI Next Generation team. What she particularly likes about the quick pace of the business is the person-to-person contacts. When asked what advice she would give to the OSPI members, she says: "Be open and honest in your approach, take matters seriously, and get actively involved."

from left to right:
Pauline Hilbrink, Aleksandr Badelin, Lena Zeissig, Paulo Butters, Allison Trost

HOW TO CREATE A STIR AT ONE OF THE MOST IMPORTANT EVENTS FOR THE CHINESE TEXTILE INDUSTRY.

Tailored to perfection with Maxima.

ShanghaiTex 2017

Groz-Beckert – the global player in world textiles.
Groz-Beckert is an indispensable partner when it comes to manufacturing maximum-precision textile surfaces. The family company, which has its headquarters at Albstadt in the Swabian Alps where it was founded in 1852, has production plants in Germany, Belgium, the Czech Republic, Portugal, the USA, India, China and Vietnam. It has a local presence for its customers in over 150 countries around the world.
The tradition-based company produces industrial machine needles, precision parts and precision products, as well as tools and systems for the manufacture and the joining of textile surfaces. Processes include knitting, weaving, felting, tufting, carding and sewing. The product portfolio includes over 70,000 types of products, and it provides a wide range of products and services for the builders of textile machines and textile producers.

The OSPI partner in China.
According to a report in Germany's Handelsblatt newspaper, in 2017 China was Germany's most important trading partner for the second time in a row. The imports and exports of the two countries amounted to a total of 186.6 billion Euros. At least 86 billion of this figure consisted of German exports. According to the AUMA (the Association of the German Trade Fair Industry) over 3,000 trade fairs are held in China – covering a total area of 83 million square metres. As is the case in all important world markets, German companies have an experienced OSPI partner to help them with their displays.
OCTANORM China has 30 employees whose job is to turn the plans of German exhibitors into reality on the ground. As environmental consciousness is continuing to grow in China, sustainable measuring systems are becoming increasingly popular here. According to the Managing Director of OCTANORM China, the latest innovations such as OCTAlumina are receiving an enthusiastic reception in the largest country of eastern Asia.

The display at ShanghaiTex.

OCTANORM China was founded in 2003 and it has specialist know-how available at various regional sites. At the ShanghaiTex 2017 exhibition OCTANORM China helped Germany's leading manufacturer to create a stunning exhibit. The futuristic ceiling design attracted the attention of exhibition visitors from a long distance away and helped to make the trade fair booth a "crowd puller". It's further proof of the type of extraordinary designs that can be achieved with the aid of modular components. The exhibit with its dynamic, curved shapes is based on the maximum use of standard components. Another element adding to the wow factor was the use of artistically tensioned textiles and cleverly arranged creative lighting effects.

An outstanding design:
Aluminium is particularly sturdy and it is only a third of the weight of steel, a feature which is of great benefit when setting up and dismantling trade fair stands. Aluminium components can be used again and again, and above all they are also very easy to recycle.

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