With a Clear Profile

ContiTech presents new image campaign
Excellent material innovation: the surface-integrated heating system made it into the top five in the Hermes Awards.
Dear Reader,

As 2015 approaches the halfway mark, it’s worth taking stock of our achievements so far. During the first six months of the year, we have been able to set the course for our continued growth. In China, one of our key markets, we celebrated our twentieth anniversary as well as the opening of our Compounding Center. We now have twelve locations in this vast country, with almost 5,000 employees. In the NAFTA region our business has made significant gains. After taking over Veyance, we restructured our activities there, and responsibility for this region now lies with Jim Hill, Head of the Business Region NAFTA.

Our strategy is clearly directed toward collaborations with our international customers to develop intelligent solutions for industry that meet current and future requirements. For me, the key point here is not just to develop the right products for each country and culture; far more, I would like us first and foremost to offer our customers a readily available service that’s based on a clear understanding of their needs and rooted in a real desire to serve, coupled with outstanding components and a high degree of professionalism and digitization. We owe it to our partners to develop our service range consistently.

The specialist skills we offer in this respect are expressed through our guiding principle, Engineering Next Level, which highlights outstanding performance, proximity to the customer, and socially and environmentally responsible business conduct.

Every year we introduce a number of new and enhanced products from in our research labs, which we quickly develop to market-readiness. That’s simply because business success depends not only on innovative strength but also on speed and precision, so we can take products, components and services to the market without delay. In this edition of ContiTech initiativ, we present an especially lightweight crossbeam mount, our multipurpose Dynactiv Power foil, which conserves reservoir water and generates power from solar energy, and a host of other innovations. At the same time, we already have our next projects in the pipeline, so we will be able to keep on meeting the needs and expectations of our customers for decades to come.

On that note, allow me to end by wishing you ‘happy reading’ with this edition of ContiTech initiativ.

Best regards

Hans-Jürgen Duensing
CEO of the ContiTech Division
In this issue

**ContiTech. Engineering Next Level**

**Passing the Baton**
May 1 saw Hans-Jürgen Duensing take over as CEO of ContiTech as a Member of the Continental AG Executive Board. Antje Lewe, Press Officer and Head of PR at ContiTech, spoke to Duensing about current developments and the company’s future.  Page 6

**Strong Brand Identity**
ContiTech’s new Engineering Next Level campaign was launched at this year’s Hannover Trade Fair. Three new profiling values ensure the company’s vision packs a punch: Performance, Affinity, and Responsibility.  Page 10

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Budding mechatronics engineers introduced cutting-edge Next Level technologies from ContiTech in hourly presentations live at the ContiTech trade fair booth.  Page 20

**Performance Next Level**

**Inventive Minds Create Intelligent Solutions**
With new and enhanced developments, ContiTech gives vehicle manufacturers a crucial competitive edge. In a joint interview Dr Andreas Gerken, Head of Development, and Dr Alexander Jockisch, Executive Director Business Development + Marketing at Benecke-Kaliko, discussed the current highlights.  Page 16

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Daimler relies on the CONTI® UNIPOWER TOUGH GRIP V-ribbed belt to run cooling units in Mercedes-Benz Actros and Atego trucks. The innovation ensures optimum running smoothness.  Page 28

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With its comprehensive expertise and flexographic printing solutions, ContiTech Elastomer Coatings offers a simple, viable, and eco-friendly entry into the world of “functional printing”.  Page 34
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n April 14, 2015, at this year’s press conference, Heinz-Gerhard Wente took the opportunity to pass the baton to Hans-Jürgen Duensing, his successor as CEO of ContiTech AG. Duensing is the latest member to join the Executive Board of ContiTech’s parent company, Continental. The 57-year-old’s career with the Continental Group spans more than 20 years, and he has been head of the successful Conveyor Belt Group business unit, with its 4,000 or so employees, since 2015. In January of this year Antje Lewe, who formerly worked for Group Communications, became press spokesperson and Head of PR at ContiTech. In this interview, she talks to Duensing about the present and future of the division.

Lewe: Hans-Jürgen Duensing, you’ve been a Board Member with ContiTech for the past year and are now taking over as CEO of the ContiTech Division as well. What kind of shape would you say ContiTech is in at the moment?

Duensing:

Lewe: You mentioned the acquisition of Veyance. What’s going to change because of it?

Duensing: Let’s start with the most important point: we are rising to become a clear global player. We now have 41,000 employees across five continents. We have taken on 27 production facilities in 11 countries, and our Conveyor Belt Group, in particular, is benefiting. At the helm of the Conveyor Belt Group is my long-standing colleague, Hannes Friederichsen, who left Air Spring Systems to move to Northeim. In the future, the Conveyor Belt Group will account for one quarter of ContiTech’s business.

Following the takeover, Europe will account for just under half of our overall sales. Almost a third will be generated in America, with the rest coming from Asia and smaller shares from Africa and Australia. The takeover is strategically important because our name now has a presence, especially in the NAFTA region. This is particularly true of Mexico and Canada, but also in Australia and South America, as well as China and Southeast Asia, of course.

In the future, industry will account for 54 percent of our business and the automotive industry for 46 percent – a fantastic balance. By investing in people, markets and capacities, we have set the course for our growth to continue.

Lewe: What other business units will profit from the acquisition?

Duensing: The acquisition is giving the Power Transmission Group lasting access to the North American market. It will also help Fluid Technology to grow because it has brought air-conditioning hoses and a number of different applications for industrial hoses into the Group.

In 2014 Veyance’s sales totalled €1.5 billion, with an EBITDA of about €200 million. That’s a success we are all benefiting from. Veyance’s products have already been re-branded so our global brand can continue growing in both value and renown.

Lewe: So far, our strategic focus has been on profitable growth. Are you going to change anything in this regard?

Duensing: Our first point of orientation is our Group strategy. That’s what every division of the Continental Group is working to deliver on. As part of the management team, I have worked on the strategic alignment of ContiTech in the past. But one thing is certain: we are going to continue growing, not only in our own right but also through acquisitions. And as we do so, we are going to aim for a healthy balance between business with the automotive and other key industries. In addition, we are currently in the grip of a transition. New colleagues are entering the management of the business units and segments, moving up through the ranks and taking over from each other. I think it is fundamental for us to work together to plan the future of ContiTech and all to pull in the same direction.

We want our efforts to strengthen our position. We have outstanding Research and Development resources on all continents, with over...
In April Heinz-Gerhard Wente officially passed the baton to his successor Hans-Jürgen Duensing.
3,000 qualified development engineers for rubber and plastics at about 190 production and sales locations. We also have a customer service section that works very well indeed. With our “Engineering Next Level” communications, we are expressing very clearly the fact that our skills and expertise are used in the interests of our customers.

Lewe: What projects are on the schedule at the moment? And what changed in 2014?

Duensing: We have a lot on our schedule at the moment. First of all, we continue to work on integrating 8,000 employees, who came to us through our acquisition of Veyance. On this point I will benefit from the assistance of Jim Hill, our recently appointed NAFTA boss.

This year we are also celebrating 20 years in China, where we are building a second major Benecke-Kaliko plant. Our Acella Eco product, which will be made there, fulfills the rigorous standards for in-car emissions. We are also opening our first compounding plant in China, which can produce over 3,000 specialist compounds.

Last year we launched operations at a subsidiary plant in Hangzhou for Fluid Technology, and in Peru we opened a sales office for the Conveyor Belt Group. In Kaluga, Russia, we have invested in hose-line production, and at our German facility in Northeim we have inaugurated a state-of-the-art gas power station, which saves about 10,000 tonnes of CO₂ emissions. At the same time, we made a number of targeted acquisitions last year, includ-
ing Gorvi in Barcelona and the Polish producer of interior foils, Mecapol. In Germany we took over Benchmark Drives to strengthen our position in the important growth market of electrically powered bikes. Moving into the future, we can expect more of the same.

Lewe: What, in your view, is the most important issue of all?

Duensing: Customer relationships. To me, customer relationship management is the be-all and end-all because good CRM will keep us successful over the longer term. I firmly believe the only way to continue ContiTech’s tremendous success is through a combination of innovative strength and an in-depth understanding of the customer. We want to take our next steps with our customers and develop the intelligent solutions they need for their various industry segments. To help us do this, we have built up our global Research & Development activities. So we are now available for our customers to talk to around the world and around the clock. Nowadays, when industries talk about global platforms, they have a huge competitive advantage. We are a reliable partner all over the world, with service products, advice for customers, online as well as on-site, and fast, exact, efficient repairs.

To do all of these things, we rely on 144 years of accumulated expertise. Originally we grew as a specialist in rubber. Today, our plastics solutions are of the same, high technological quality. Thanks to our material and process expertise, we can supply the market with hybrid applications that respond to the most diverse range of technological trends. We are motivated by the development of cutting-edge technologies, and we have a lot of new products and ideas in the pipeline that will help us consolidate our global lead.

Lewe: Hans-Jürgen Duensing, thank you very much for speaking to us.

“I firmly believe the only way to continue ContiTech’s tremendous success is through a combination of innovative strength and an in-depth understanding of the customer.”

Hans-Jürgen Duensing
Member of the Continental AG Executive Board
Strong Brand Identity

Engineering Next Level: campaign launch with three profiling values

The eye-catching ad visuals also featured in the ContiTech trade fair booth
As globalization increases, the ContiTech Group has evolved into a globally operating technology and market leader in the rubber and plastics industry, standing for smart industry solutions for important key sectors. ContiTech is following up its greater prominence in international markets with a new image and reputation campaign that highlights the company’s technological knowledge, process and materials expertise and responsible business practices at its 140 local sites on all five continents. The company’s new positioning should reflect above all its deep understanding of its customers, for which managers and employees work closely with their partners in a global network. With over 20,000 products, 38,000 employees and 3,000 research and development engineers, the corporate group has chosen “Engineering Next Level” as its unifying theme.

“We have developed differentiating values for ourselves that resonate equally with the staff, the managers and our external target groups.”

Jens Fechner, Head of Market Communications ContiTech

Engineering Next Level – industry solutions for today and tomorrow

“We wanted a snappy campaign that suits us: clear, down-to-earth, with great motifs and statements. Our communication focuses clearly on the core message – that we develop for and with our customers precisely the products, components and systems that provide added value for our partners in industry,” says Frank Stünkel, who heads both international sales and marketing communications. Jens Fechner, Head of Market Communications ContiTech, adds: “We offer sophisticated solutions that meet the technological as well as the socio-political trends and needs of today and tomorrow. As an engineering-driven company we convey our expertise under the unifying principle of Engineering Next Level”. The communications experts have taken a significant step further, by also adding precise profiling values, which clearly distinguish ContiTech from its competitors.

“Innovation, quality or customer orientation are normally the brand values that customers and also society take for granted these days,” says Fechner. “We have developed differentiating values for ourselves that resonate equally with the staff, the managers and our external target groups.” So in future the brand communication will rely on three key
**Affinity Next Level**

Affinity Next Level stands for ContiTech's desire to be where its customers are. We promote close ties with our partners at more than 140 sites in 43 countries around the world and work consistently to develop and maintain them. In collaborations with our customers, we develop individual, high-tech solutions and services right where they are needed. As a rubber and plastics expert, we enable applications with the very best products and systems: fast, precise and in line with market conditions. For ContiTech, optimal customer service means being there for our customers 24/7.

**Responsibility Next Level**

Responsible business conduct in our markets is an integral part of the ContiTech corporate strategy and a determining characteristic of our value chain. One of the many things we do is to continually and systematically reduce material and energy consumption at our production locations around the world. In addition, we develop better, more efficient production processes for the benefit of people and the environment. New products and services by ContiTech set standards in terms of durability and functional reliability.

The ad campaign uses striking typographical and colored elements to present ContiTech as an innovative company with advanced technological expertise.
Simply order your personal copy of the ContiTech Engineering Next Level Broschüre here
descriptions of ContiTech’s performance and quality: Performance Next Level, Affinity Next Level and Responsibility Next Level. This self-image is prominently underscored by further definitions. Performance Next Level, for instance, is broken down into the two-word phrases “Increase precision, drive innovation, awaken curiosity”. The campaign relies heavily on a strong typographic approach, which sets it apart from the field. It was also essential that not just B2B customers but also end users understand the new identity. Because consumers too will be more aware of ContiTech in the future. With new products and systems such as e-bikes, for example, the group is opening up entirely new target markets. “Our campaign also ties in with the image of our Continental group,” says Stünkel. “It’s also interesting for the analysts to know what potentials lie behind the brand.”

In March the campaign was launched internally at the management conference, while externally the world’s leading industrial trade fair the Hannover Messe Industrie was used to showcase ContiTech’s new positioning to the professional public. There was no missing the message, as a huge cylinder with the campaign motifs towered over the booth showing large-format advertisements. An eye-catching brochure and a specially designed portal on the website complete the cohesive new identity. Whether press kit, advertisements, website, Internet portal or film – all media are perfectly coordinated. And the accompanying stories always revolve around people.

“The campaign works on all continents and in all cultures; that’s a basic requirement for a global player. In China we’ve had just as successful a start as in Europe,” says Fechner explaining the campaign work. “We’ve examined all the statements and contents across all channels and tools from every angle.”

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“The campaign works on all continents and in all cultures; that’s a basic requirement for a global player. In China we’ve had just as successful a start as in Europe,” says Fechner explaining the campaign work.
Dr Andreas Gerken, Head of Development PUR/CF (left), and Dr Alexander Jockisch, Executive Director Business Development + Marketing, with the Hermes Award certificate.
Inventive Minds Create Intelligent Solutions

Interview with Benecke-Kaliko’s Dr Andreas Gerken, Head of Polyurethane Pre-Development, and Dr Alexander Jockisch, Head of Business Development + Marketing

When it comes to gaining a competitive advantage in a dynamic automotive market, the constant technological enhancement of vehicles is crucial. Many of the innovations involved are developed and produced by suppliers and are the driving force behind more efficient, lighter, safer and more comfortable cars. The question is: What products and applications will customers and consumers want in the future? Finding the right answer takes inventiveness and a detailed knowledge of the needs and requirements of the market – all in the right combination.

As the specialist for interior materials for vehicles, ContiTech’s Benecke-Kaliko business unit has a strong team that gets the right solutions out onto the roads. The best example is Benecke-Kaliko’s surface-integrated heating system, which was ranked among the top 5 in the Hermes Awards. ContiTech initiative spoke to the “father” of this idea, Dr Andreas Gerken, about innovations in materials. Also in this interview, Dr Alexander Jockisch reveals some of the latest developments that are currently in the pipeline.

CTi: Andreas Gerken, what exactly is surface-integrated heating all about?

Gerken: We developed a spreadable conductive paste for screen-printing onto the back of our covering materials. Used in seats, steering wheels, armrests, door panels and foot mats, it can conduct electricity and convert it directly into heat. It works entirely without special heating elements – in seconds. Imagine how great it will be to get into a car that immediately warms up in the winter! Also, this paste takes very little energy and you can use it in any shape of component. Because the polymer mix is printed straight onto the covering material, no additional processes are required to fit heating systems into vehicle interiors. In series production of cars, it’s designed to be wired up by conventional means. Work is ongoing at the moment in a cross-divisional project with our colleagues in the Automotive Group to find a way of doing this on an industrial scale.

CTi: What gave you the idea to create a surface-integrated heating system like this?

Gerken: A lot of our developments are about optimizing design, feel and weight, but also being health- and eco-friendly. They respond to a lot of the key trends that are emerging in the automotive industry. Then, about three years ago, we decided we wanted to add more value to our interior materials for the longer term, so we pursued the idea of integrating functions into them. We started intensively researching and testing possible options. The challenge was to find a material that conducts electricity, uses minimal amounts of energy and is flexible enough not to break, even when it’s exposed to stresses and strains for prolonged periods. The result of our efforts was this new, conductive paste.

CTi: In which markets do you think this product will be especially successful?

Jockisch: At the moment, we are seeing huge interest worldwide from every automotive producer. But that’s hardly surprising – after all, our surface-integrated heating saves both weight and energy and reduces complexity. For carmakers, this combination is very interesting indeed. But we also had a very positive reception from experts from outside the automotive industry. So we see plenty of potential there as well.

CTi: How can your customers benefit from it?

Gerken: As well as the advantages Alexander Jockisch just mentioned, another point that’s well worth highlighting is the fact that this paste is easy to integrate into existing production processes – into upholstering, for example – so it’s guaranteed to offer major benefits for customers. After all, in automotive production especially, every cent counts.

Jockisch: It also provides important impulses for the electric mobility market of the future. For the first time, we now have a solution that provides efficient, economical heating in electric cars. So this innovation is a major contributor when it comes to helping electric cars cover longer ranges in cold weather. But drivers of diesel and gasoline-powered cars benefit too, especially on short trips. High-quality materials by Benecke-Kaliko have been setting
the benchmark for decades. We are quick to pick up on major trends as they emerge and push forward our ideas to turn them into successful innovations for the markets. New functions and applications are giving both Continental and our customers a clear competitive advantage.

CTi: In what other applications could this development play a key role?

Gerken: This paste can be used in any vehicle that needs heating – be it trucks, agricultural vehicles, construction vehicles, trains or airplanes. All of them can use this new technology. For Benecke-Kaliko itself, this product opens up a number of further opportunities in the markets. Our colleagues from Continental Engineering Services, for example, have used it to develop touch-sensitive sensors and switches that can be integrated into surfaces. These could be used anywhere – not just in cars.

CTi: What other ideas are coming out of the Benecke-Kaliko powerhouse of innovation?

Jockisch: Our expertise in surfaces and materials is unique and it’s what allows us to create innovative designs and unmistakable interiors. With our new Enhance program and F.O.C.U.S., we are offering our customers a toolbox for highly customized product and service solutions. F.O.C.U.S. stands for “feature-optimized customer-unique solutions” and it’s about specialized solutions that add as much value as possible for end users. These additional functions are invaluable for carmakers and help individual producers set themselves apart from competitors. They also increase satisfaction among end users. Another building block in this respect is Surfvis 3D. This enables carmakers to save time, money and effort in product development because years before the first prototypes are even made, they can already use virtual

“The electric mobility market of the future requires inventiveness and technical and materials expertise.”

Dr Alexander Jockisch, Head of Business Development + Marketing at Benecke-Kaliko
methods to get an idea of what a specific component will bring to the vehicle interior. Meanwhile, Enhance is all about our optimized interior surfaces, which target customers on the emotional level and bring out the core of the vehicle brand.

CTi: Can you give us an example of that?

Jockisch: Our products with the words "Go!", "Eco", "Light", "Protect", Lux" and "Hylite" in their names are all optimized. Go!, for example, signifies that the product is an entry-level product that gives customers their first access to these product families. Go! is the name under which we are taking our premium surface solutions into emerging markets where low-cost solutions are of key importance. Our Eco products are especially kind to health and the environment. Light products, such as Yorn Light, are ultra-light in weight, and our Protect line is scratch-proof, dirt-repellent, especially durable and easy to clean. And then there’s our Lux category, which comprises ultra-soft products with a luxurious feel. Hylite products are made of translucent, conductive materials that have an afterglow or a metallic look. Our surface-integrated heating is another example of this.

CTi: Andreas Gerken, Alexander Jockisch, thank you very much for talking to us.

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Hermes Award 2015: Energy-saving vehicle heating is secret runner-up

The Hermes Award is considered one of the most important innovation prizes in the engineering sector and for the megatrends of Industry 4.0. This year the international technology award of the Hannover Messe attracted 70 applications in total – a record number. The jury highlighted the unusually high quality of the entries, with chairman Professor Wolfgang Wahlster praising not just next-generation machinery inventions but also – and most importantly – innovations that pave the way for a successful energy revolution. Wahlster is Chairman of the Board of Directors at the German Research Center for Artificial Intelligence (DKFI). On the evening the trade fair was opened, German Chancellor Angela Merkel and India’s Prime Minister Modi were in attendance, and as expected the mechanical engineering company Wittenstein AG won an award for its Galaxie Drive System. Secret runner-up among the five innovations that had been nominated was ContiTech’s Benecke-Kaliko business unit with its surface-integrated heating. This marketable material of the future has undergone years of testing and is now a market-ready energy-saving product.
Trainees Kristin Schultz (left) and Nicholas Tillet-Alcukur (right) explain the latest ContiTech product highlights to an interested trade fair visitor.
Before the doors of the Hannover trade fair 2015 finally open at 9.00 a.m., the halls of the exhibition center are a hive of activity. Exhibitors stride briskly along the endless aisles to get to their booths in time, and here and there a few exhibits are given a final polish; magazine racks are filled and chairs pushed into place; teams get together for a last briefing – and finally everything is ready to go. After months of preparation, a steady flow of early visitors enters the halls. As the halls gradually fill with noise, six ContiTech trainees suffer a last bout of stage fright. In a final tech-check, their pointers and mikes are readied and Kristin Schultz and Nicholas Tillett-Akcukur take to the stage. With a nod of the head, the two, who are both in their first year of training, turn their smiling faces toward the public. For the next five days, the upcoming mechatronics specialists will be giving hourly live presentations introducing three of ContiTech’s latest innovations. To get this far, they have already had to pass a number of tests and they’re now looking forward to performing.

Lights, camera... … and Action! “Ladies and gentlemen, welcome to our booth. Over the next few minutes, we’ll be transporting you into the world of ContiTech, a world of natural rubber and plastics – and of innovations we generate from them. In line with our guiding principle of Engineering Next Level, today’s innovations meet the requirements of tomorrow,” says Nicholas Tillett-Akcukur, greeting passers-by. The first few stop to listen. More and more join them until finally a crowd gathers before the stage. The trainees present the first of three products: a two-in-one solution for storing water and generating energy in semi-arid regions. With its integrated solar cells, the foil in question prevents water from evaporating in the heat of the sun while at the same time using its energy to generate climate-friendly energy. (More on pages 24-27) Next, the duo demonstrates the lightweight qualities of components by ContiTech. Lightweight engineering remains a huge issue for carmakers and many key industries – and a set of scales proves that ContiTech has the answer: “As you can see, this transmission crossbeam for rear axles is 30 percent lighter. Unlike conventional components of this kind, this innovation by ContiTech Vibration Control is made of plastic, not aluminum,” explains Kristin Schultz. (More on pages 30 to 31)

One hour later a loud screeching resounds across Hall 6. Third-year trainees Jasper Viezens and Marvin Walldorf are demonstrating just how noisy a V-ribbed belt can be. “In cold or very wet weather, a standard belt can be affected by moisture, losing its grip and making loud noises. Our innovation doesn’t! Even in extremely wet conditions, this belt makes no such noises,” says Jasper Viezens, piquing the interest of trade fair visitors. After the presentation, some of them...
make their way onto the stage to take a closer look at the product highlights and ask their questions. Two trainees are on hand to answer them: in one-to-one conversations Felix Raubaum and Keno Freund reveal the secrets behind the silent belt by ContiTech.

**Down but not out**

Novice or pro, a minor hitch can happen to anyone, and the fact that a headset fails does nothing to deter the trainees giving the next presentation. The two know each other’s scripts by heart and can easily step in for each other to save the day. Not even high-profile figures are a problem: the trainees demonstrate some of the innovations to Stefan Schostok, Mayor of Hanover. Shareholder Maria-Elisabeth Schaeffler, who holds a large number of stocks in the company, is also there and listens intently with her son, Georg Friedrich Wilhelm Schaeffler.

The idea of asking trainees to present the latest innovations at the ContiTech stand is the brainchild of Jens Fechner, Head of Market Communications and Branding at ContiTech. “It demonstrates to people that our employees are quick to develop an understanding of our philosophy and proves we’re investing in our future. That’s true for every ContiTech specialist and manager – right from the start,” Jens Fechner explains.

The popular TechTours organized by the Hannover Messe AG prove to be just as much of a success. The brand stand is a popular destination for the many international guests, and commercial trainee Sebastian Schmidt takes them through the ContiTech range speaking fluent English throughout.

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Product Road Show

The month of March saw ContiTech Vibration Control’s first mobile showroom take to the road as it embarked on its tour of Germany. With a range of innovative, vibration-damping products in its luggage, the ExpoBoxx spent a total of six weeks visiting new and existing customers from the agriculture and mechanical engineering sectors. As well as presenting an extensive product portfolio, specialists were on hand to answer questions and queries. They also worked with customers to develop solutions to keep their machinery, engines and systems running smoothly and reliably.

Safely stowed in the mobile cupboards of the ExpoBoxx were several hundred products ranging from rubber-metal elements, such as hydromounts, through axle bushings, couplings and friction wheels to components made from special elastomers and plastics. “The tour was a huge success.

We were able to convince a lot of customers of the merits of this new idea and demonstrate our development expertise to them directly,” says Michael Upplegger, Head of SCM/Key Account Manager, who developed the concept and took to the road with the team.

“During the roadshow my colleagues from development and I worked together to find possible queries we could address through new, joint projects. This is going to take us a significant step closer to our goal: to strengthen our position and become an active force in a growing agriculture market.”

The show was realized together with the company Show Truck Marketing.

Engineering Next Level in China: Strong Presence in a Key Market

China has been a key international market for ContiTech for more than 20 years. And the company is further developing its presence there.

High-Level Compounds for Excellent Performance – That was the motto of celebrations on July 3, at the inauguration of ContiTech’s first Compounding Center in Changshu, China. With the start of its production facility for rubber compounds in Changshu, ContiTech has reached another historic milestone in the Chinese market. At a total of €10 million, it is one of the biggest investments in the history of the business unit.

Also, last October ContiTech Grand Ocean Fluid opened a subsidiary plant in Hangzhou, which has been producing underfloor air-conditioning hoses for Ford since March 2015. Benecke-Kaliko is also stepping up activities in China: as a world leader in surface materials for car interiors, it is currently constructing its second local plant in Changzhou, which is scheduled to come on stream at the end of 2015. Moreover, after taking over Veyance, ContiTech is also developing its business outside the automotive industry and has added two production sites in Shangdong Province with 2,000 employees to the ContiTech production network.

In April, ContiTech showcased its prowess as an innovator at the Auto Shanghai motor show, the most important automotive trade show in the Far East. The company presented its ultra-strong, lightweight mount elements and hose systems for engines and chassis as well as its luxury, eco- and health-friendly interior materials and durable timing belts for fuel-efficient engines.

Proximity to the customer, continuity and a focus on the future are the key features of ContiTech’s commitment to China, which are clearly set out in the latest Engineering Next Level in China brochure. Published in spring of this year, the magazine presents the ContiTech message in specially tailored form for the Chinese market.
Ground-Breaking
Two-in-One Innovation

Special foil with integrated solar cells saves water and generates energy in semi-arid regions.
Bahnbrechende Innovation mit Doppelnutzen

Spezialfolie mit Solarzellen erhält kostbares Wasser in heißen Regionen und sorgt für Energie
Water scarcity is a hotly debated issue. California, for example, has hardly had any rain for years, so the government has instated tough measures to reduce water consumption by municipalities and communities by 25 percent. The problem is especially serious in areas that are not connected to municipal grids and suffer lengthy periods of drought. Here water and electricity are often in short supply. It’s a problem that affects not only large countries, such as the USA, Australia and China, but also the Near East and Africa. Large reservoirs of service water are an important resource in regions like these, and the water they collect is used by farmers to water their fields. This keeps local food production up and running and local populations healthy. The next step toward greater prosperity consists of access to education and culture.

For a number of years, developers at ContiTech have been looking into possible ways of retaining water supplies in semi-arid regions while at the same time using them to generate power. One day Tobias Haarburger, the Benecke-Kaliko subsidiary’s Program Manager Industry, came up with an ingenious solution. Working in close collaboration with Israel’s Haogenplast Ltd, and with water managers, high-voltage electricity specialists, photovoltaic producers and scientific institutes, Haarburger and his team spent three years perfecting a market-ready product. Their innovation immediately met with significant interest from business and the media, with one daily newspaper even running the headline “Electricity off the roll”.

The two-in-one solution

The principle behind it all is a sustainable innovation that combines simple, cost-saving water conservation with effective power generation. Known as “Dynactiv Power – with integrated solar, technology”, the special laminated foil consists of opaque sheeting with a number of different functional qualities. It can be used to cover entire areas of water completely. “This keeps as much as 40 percent more service water available for use, opening up far more land for agriculture and, in turn, delivering considerably larger yields,” Tobias Haarburger explains. But it also has another advantage: depending on how much energy the local area and its people need, suitable numbers of solar cells can be chosen and laminated straight into the surface of the foil. This enables the energy for local households and pump stations to be generated directly from the sun. “For many communities in remote areas with limited access to electricity, this represents an important part of a secure energy supply,” Haarburger says, clarifying the situation.

Outstanding performance – for people and the environment

In a reservoir with an area of 100,000 square meters, the innovative foil harnesses enough power to run a small power station generating 5.0 megawatt peak (MWp). “As well as being a self-sustaining source of electricity for households, the system also powers pumps that transport precious service water to more distant locations for distribution across dryer regions,” says Tobias Haarburger explaining the advantages of the system and describing how energy-intensive it is to operate pump stations that transport water from reservoirs out into fields. On the other hand, however, he also refers to the
Eco-friendly foil laminate

Dynactiv Power foil laminate has no emissions that might contaminate either the water or the air. At the end of its service life, it is simple to remove: entire lengths of the foil are simply rolled up, including their solar cells, and taken away. Because it has no moving parts, is noise-free and has zero environmental impact, it can be used without any concerns. This low-maintenance system also has an expected lifetime of at least 20 years and is made from fully recyclable materials.

Growing numbers of desalination plants in coastal locations. These produce drinking water that requires a sophisticated network system to pipe it to a large reservoir far inland for interim storage. Dynactiv Power consequently makes a notable contribution to environment and climate protection, says Haarburger, highlighting the fact that this feat of engineering is “Responsibility Next Level” in practice.

Collaborative effort is production-ready
Dynactiv Power is produced by laminating flexible, thin-layered modules into a foam-backed PVC foil. It was tested by Benecke-Kaliko and its partners on the Mediterranean coast of Israel, near the town of Netanya. A 1,200 square meter prototype ran for three years, delivering peak output of 8.5 kilowatt peak. A number of different solar cell solutions were trialed in a kind of open-air test facility. “I was able to monitor energy output and a number of other parameters on my PC screen here in my office in Hanover,” says Haarburger. “We are now launching targeted steps to market our innovation.”

Industrial prefabrication for ease of installation
“The big advantage for our customers is that this system is quick to install because it is largely industrially prefabricated. This saves time and money. All you need is an excavator to dig out a basin, and then you’re ready to roll out the foil,” Haarburger explains. This solution also does away with construction sites because complex concrete structures are not required. The foil is simply rolled out in strips measuring 25 meters in length and 1.5 meters across, which are then joined together by welding. Later, maintenance technicians can simply walk across the foils, which are even strong enough to hold a car. Another bonus is the fact that because the solar modules lie flat on the surface of the foil, covering an area of up to 100,000 square meters, they remain virtually unaffected by impact of wind and weather. “This makes our system unique. Dynactiv Power delivers the same energy output as other systems but is infinitely easier to install than the fixed modules that have been used to date. Moreover, no other foil has so far been able to prevent more than 40 percent of evaporation, which is what our specialist product does,” Haarburger is keen to point out. “In line with our guiding principle of ‘Engineering Next Level’, ContiTech is once again setting a benchmark in a new industry thanks to this latest innovation.”

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The textile coating even protects the CONTI® UNIPOWER TOUGH GRIP V-ribbed belt from wear in dusty and sandy environments.
Surface Fit for Purpose

CONTI® UNIPOWER TOUGH GRIP V-ribbed belt keeps ancillary units in trucks running smoothly and reliably

The ContiTech Power Transmission Group’s CONTI® UNIPOWER TOUGH GRIP is a new, textile-coated V-ribbed belt that can now be used in commercial vehicles. Its low friction coefficient is achieved by the special surface on its ribbed side, which is coated with a highly abrasion-resistant fabric that’s also dynamically extremely stable. When forces peak, the belt can slip for a brief moment, leaving its surface to slide across that of the crankshaft for as long as the system is operating under major loads. This keeps the drive running reliably and smoothly. CONTI® UNIPOWER TOUGH GRIP is an advanced solution, thoroughly convincing and able to ensure optimum smoothness in ancillary units, such as the cooling units in Mercedes-Benz Acros and Atego trucks.

“Generators like these produce about 36 kilowatts. Because they are so heavy, they have a high rotating mass,” explains Guido Grande, Key Account Manager Commercial Vehicles Europe at the ContiTech Power Transmission Group. “If you used a standard V-ribbed belt in a situation like this, its high friction coefficient would make it vibrate excessively.” This, in turn, would cause unacceptably severe movements in the tensioner arm. As well as ensuring sufficient belt tension, the component damps vibrations in the belt drive caused by changing engine loads. Unlike standard belts, CONTI® UNIPOWER TOUGH GRIP would not come off the drive in a situation of this kind.

This ContiTech innovation has already proved its worth in the passenger car industry, where it is used to drive air-conditioning compressors, steering assistance pumps, generators and starter generators, for example. The textile coating on its running side reduces wear and tear and heightens grip and smoothness – even in the most difficult conditions, such as cold starts, dampness or when pulleys are misaligned. The special running side of the belt minimizes noise, and its textile layer helps protect the belt from wear, even in dusty conditions. Various tests in off-road vehicles used in agriculture and plant engineering have had a successful start, and the first series production approval has already been granted.

Another advantage of CONTI® UNIPOWER TOUGH GRIP is that it is manufactured using a special solvent-free production method. This means the product meets our Next Level aspirations in both Performance and Responsibility.

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In a bid to reduce fuel consumption and CO₂ emissions as far as possible, automotive manufacturers eliminate every gram of unnecessary weight in their cars – and genuinely lightweight components by ContiTech are helping them do so. Engineers at ContiTech Vibration Control have come up with a pioneering development: the world's first fiberglass-reinforced polyamide transmission crossbeam for rear axles.

As a specialist in mounts, ContiTech Vibration Control has managed to create a component that weighs 30 percent less than conventional equivalents made of aluminum, saving one whole kilogram.

“This product is a milestone in the application of polyamides in chassis construction and has the potential to offer lasting benefits in the automotive industry,” says Dr. Hans-Jürgen Karkosch, Head of Research & Development at ContiTech Vibration Control. “More and more, metal is being replaced by polyamide. This is an area where we are leading the field. We are helping car producers to gradually replace metals with high-performance plastics in order to save weight.” As the key element in the sub-frame, this ContiTech component is also very rigid and performs well in crashes. Besides saving weight, the crossbeam was engineered to ensure the best possible vehi-
This product is a milestone in the application of polyamides in chassis construction and has the potential to offer lasting benefits in the automotive industry.

Dr. Hans-Jürgen Karkosch, Head of Research & Development at ContiTech Vibration Control

“Responsibility Next Level”

Source of inspiration for new cutting-edge technologies

“Our comprehensive expertise in materials has made us an important partner for the automotive industry. We work in close collaboration with our customers to develop groundbreaking innovations that will secure a decisive competitive edge for them,” says Karkosch.

As a specialist in natural rubber and plastics, ContiTech sets new standards in lightweight engineering time and time again with solutions that are innovative on a global level. This latest innovation, however, has a number of other advantages too: polyamide can be formed at lower temperatures than aluminum and requires considerably less energy to produce. It can also be recycled in many different ways.

ContiTech Vibration Control has been using BASF Ultramid for automotive mounting elements since 2006 – and a string of design awards prove its success. Product solutions include high-performance engine-mounts and have sold in their millions. In addition, in 2009 ContiTech brought a lightweight transmission crossbeam onto the market. Made from BASF Ultramid, it supports the forces and torque of the engine transmission unit. It is also 50 percent lighter than one made of aluminum.

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Over the last 20 years, China has developed into a major growth engine for ContiTech. July saw another business unit of the company open a new production site in the country: ContiTech Compounding Technology. With the start of the production facility for rubber compounds in Changshu, the company is bringing its special materials expertise straight to the key market. The new plant is further evidence of ContiTech’s stable, local business growth and a key element in its ongoing decentralization strategy. “In the market for the market – that’s part of our growth strategy for China. In this context, we consistently organize ourselves on a decentralized basis – including a full service in every business unit. The start of production at our Compounding Center here in China is a testament to that. Our compounds are the necessary basis for numerous next-level applications in many industries,” said Hans-Jürgen Duensing, CEO of ContiTech and Member of the Continental AG Executive Board, at the opening ceremony.

In its 3,000 square meters of production space, the Compounding Center in China has also set standards from a technological perspective. The machinery on the first production line is some of the most efficient at ContiTech – absolutely state-of-the-art. In the plant the basic material of rubber – derived naturally or produced synthetically

Tour of the plant on opening day
Affinity Next Level

– is mixed with ingredients such as carbon black and sulfur, chalk, oil, or wax. “Thanks to our special technological expertise, we are today able to produce compounds free of lead, CFCs, mercury, or cadmium – in absolutely consistent quality,” points out Dr Peter Scholtissek, Managing Director of ContiTech Compounding Technology.

In the first phase the company is beginning operations with a compounding line with a capacity of 10,000 metric tons per year. In addition, an extrusion line for high-tech compounds produces one metric ton of rubber compounds every hour. However, the plant is set up in such a way that it can double its capacity in the years to come.

Recipe for success: long-standing expertise

As one of the leading specialists worldwide, ContiTech Compounding Technology develops compounds for a wide range of industrial fields. Rubber is a unique and incredibly variable basis for technological innovations. Knowledge of the right way to put the raw materials together constitutes 50 percent of a new product innovation.

“Our expertise in materials is a decisive factor in the lasting success of ContiTech. This is how global production and process trends such as lightweight design, downsizing, safety, and comfort are mastered. It’s precisely these aspects that are also becoming more important in China,” says Scholtissek.

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Fast, customized and local

With the compounds produced in China, Compounding Technology will initially supply its partners at ContiTech – particularly in Changshu. “We are now able to work even more quickly, more specifically, and with a greater proportion of local raw materials to provide customized compounds for the needs and requirements of the Chinese market – in perfect keeping with our principle of being there where our customers need us,” adds Scholtissek.

The long-term objective is to offer our entire range of services locally on the Chinese market. This also includes building up research and development capacity in Changshu. ContiTech also plans to offer its high-quality rubber compounds to external customers in China from 2016.

Compounding Technology at the DKT and IRC

At the worldwide meeting place for experts and companies in the rubber and elastomer industry, the combined German Rubber Conference (DKT) and International Rubber Conference (IRC), Compounding Technology presented its comprehensive product portfolio. Its presence at the trade fair was centered around compounds in various forms of delivery, all of which meet the current REACH requirements. As part of the lecture program, ContiTech presented further technologies and Dr Peter Scholtissek, Managing Director Compounding Technology, gave a talk on the subject of energy-efficient compounding. He highlighted numerous points in the production process that harbour energy-saving potential, and especially how to can save time and energy in compounding with process optimizations.
Printed electronics: ContiTech delivers customized structures for sustainable printing methods.
Printing is a highly sophisticated production process, and it’s being enhanced and improved all the time. Nowadays thin, flexible, transparent electronic components can be created by printing, by applying what are called “functional” inks and pastes instead of classic inks. “These liquids can have a range of different properties. They can be conductive, magnetic, hydrophobic, light-conducting or corrosive, for instance. So it’s now possible to print PCBs, OLED displays, RFID chips, sensor labels and memory labels or even to make intelligent additions to project packaging,” explains Armin Senne, Flexo Business Manager. So in years to come, supermarkets could become quite noisy places as the packaging of fresh produce automatically signals when the sell-by date has been reached and the product needs to be taken off the shelves.

Cost-efficient, fast and eco-friendly
ContiTech is offering customers a simple, viable, sustainable entry into the world of “functional printing”. In flexography, functional inks and pastes are applied to a substrate, such as paper, textiles and plastic foils, using a print form made of a flexible rubber material which ContiTech treats by laser to refine structures down to 5 µm. This fineness is a key sign of quality, as the sharpness of the structures is fundamental to the functionality of conductive components. Until now, the market has relied mainly on screen-printing: “For a long time flexographic printing wasn’t good enough to meet the specifications required to make functional parts of this kind. But nowadays it’s a very suitable method – and it’s between ten and twenty times faster than screen-printing as well,” Senne points out. It is also eco-friendly because it does not use dangerous solvents, and as well as having far lower material costs, elastomer printing plates can have 3D structures, fully equipped with electronics.
According to market research institute IDTechEx, the market for printed, flexible, and organic electronics will more than triple in size over the next ten years. Flexographic printing constitutes a future-proof alternative to conventional processes:

- **Eco-friendly**: Laser engraving eradicates the need for harmful chemicals.
- **Resistant**: Elastomers are water-, solvent-, UV-, and ozone-resistant.
- **Resolution**: Ultrafine structures of up to 5 µm are possible.
- **Know-how**: Flexographic printing holds a leading position in flexible packaging.
- **Cost-effective**: Elastomer printing plates reduce material costs on a lasting basis.
A range of opportunities

The new production process opens up a wide range of possible applications – and with them come growth opportunities in a variety of industry sectors. Having already succeeded in printing a prototype solar cell by flexography (see also ContiTech initiativ, 02/15), ContiTech is currently collaborating with the Institute for Transport and Automation Technologies at Leibniz University, Hanover, to develop printed optical fibers.

To set itself up for future markets, ContiTech Elastomer Coatings, the specialist producer of elastomer flexographic printing forms, is joining forces with the full-service printed electronics provider SAUERESSIG FLEXO. The two organizations are pooling their skills and offering complete solutions ranging from individual consultations and cost-efficient lab tests to technology transfer in production. “For customers who express an interest, we are happy to highlight the opportunities and business potential of this innovation,” Senne explains. Together, the partners are now working to offer print businesses and brand owners easy entry into this new technology. This will allow them to add electronic components to their product portfolio simply and cost-effectively.

In another application, electronic brand seals could be incorporated into the soles of branded shoes, for example. This would enable customers to distinguish more easily between genuine and fake products and so help to protect brands. That’s Performance Next Level – made by ContiTech.

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With its acquisition of Veyance Technologies in early 2015, ContiTech united the strengths of two specialists in the world of natural rubber and plastics. The takeover represents the next logical step in its growth strategy, which will see ContiTech develop its lead in technology and innovations. ContiTech is now closer than ever to its customers across the globe. It is also able to develop and manufacture new products in local markets even faster than before. And that’s not all: as a global player, ContiTech now has a significantly broader product range as well.

At the recent Hannover Trade Fair, visitors to the ContiTech stand were able get a first impression of the new product world. One item that could hardly be overlooked was a major hose product by Industrial Fluid Systems. Suited to almost every medium, from water to petroleum, this hose is impressively produced in sections measuring up to 124 meters. Demand is strongest among customers who need to transport fluids flexibly in confined spaces, and the product is especially widely used in bottling plants.

Another highlight was Flexsteel® 250 EPDM, an ultra-safe steam hose. Even in rough conditions in refineries, wharves and foundries, for example, Flexsteel® 250 EPDM can withstand operating pressures of up to 250 psi and temperatures ranging from -40°C to 232°C.

With a tensile member made of aramid, the heavy-duty CONTI® FALCON PD timing belt is specially designed for the extremely demanding drives. Its advantages include low-noise, virtually maintenance-free operations, and temperature resistance from -50°C to +95°C.

The self-tracking CONTI®SILENTSYNC is especially quiet, vibration-free, and well-suited to horizontal drives, for example in air-conditioning systems and the like.

These and many other highlights offer a host of advantages for ContiTech customers.
This year’s Hannover Trade Fair saw ContiTech Vibration Control present its Supplier Of The Year Awards 2014. Heinz-Gerhard Wente, former Board Member at Continental AG and Head of the ContiTech Division, handed certificates to five selected companies: SAPA Profily a.s. (a producer of aluminum profiles), Brugger Magnetsysteme GmbH (permanent-magnetic assemblies), mbw Metallveredelung (galvanic and chemical surface treatments), MI Plastik PLUS a.s. (injection molded plastic parts) and Shanghai HEBA Die-Casting Co. Ltd. (a pressure casting specialist). “Our suppliers are vital to our success – and these five companies especially,” said Christoph Dudek, Director of Purchasing & Logistics, speaking at the awards ceremony. “For us it is hugely important to involve our suppliers in our processes as partners. As a team, we develop cutting-edge technologies to series production standard so we can add value for our customers.” The five award-winners were selected for the ContiTech Vibration Control awards from among 180 suppliers. “As suppliers to our plants around the world, these companies convinced us with their quality and with their performance in terms of delivery and development work,” says Dudek. ContiTech attaches great importance to close collaborations with its suppliers, and these long-standing partnerships make a sustained contribution to technological progress.

Unique Service for Industry

ContiTech Air Spring Systems has updated and extended its online presence for industrial applications. New features include CAD data for all air springs and air actuators used in industrial applications, and details can now be downloaded straight from the website. “A service of this nature is unique in industry so far,” says Verena Weiss, Head of the Industry segment at ContiTech Air Spring Systems. The CAD data give users the exact measurements of the ContiTech products for their construction drawings and simulations. This allows them to refine their plans more precisely and visualize them before commencing construction. The availability of this information is a great help for engineering and design companies, who had previously had to request information every time they needed it. Thanks to this new online service, they have all the information they need at their fingertips – always and without delay. The new website also provides easy access to a host of other information as well as calculation tools which allow users to develop the initial setup for their air springs. “When it comes to the final setup, the development team will be happy to assist,” adds Weiss. In addition, a video on the homepage tells customers in industry about the skills and expertise of ContiTech Air Spring Systems. The website is also available in optimized form for use on smartphones and tablets, so customers and potential customers can access it easily even when they are on the move. Visit the new ContiTech website at www.contitech.de/iap.
EXPAND SERVICE
INTENSIFY CUSTOMER RELATIONS
SHARE PASSION
AFFINITY NEXT LEVEL

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