Innovation:
Full power for Asia

ContiTech’s new Research and Development Centre in China
ContiTech Power Transmission Group drive belts are setting new standards in efficiency and eco-friendliness.
Dear reader

Last year we continued to grow successfully and strengthened our presence in the international market. This year is set to present us with a number of new challenges as the markets remain in a state of flux, and material prices reach their upper limit. Even though forecasts predict volatility, I remain confident that ContiTech will be able to continue its profitable growth, provided we remain as swift and flexible as we have been in the past.

Much of our recent growth is attributable to our strong commitment outside Europe. This shows clearly that our strategy of entering growth markets such as China, but also Korea and India as well as Brazil and now also Russia, building up our own plants there, and taking our development expertise close to the customer is working out – and it will continue to drive us in the future. Furthermore we have launched a number of group-wide initiatives that will bring continuous enhancements to our processes. This will benefit our customers and represents the realisation of our service philosophy.

We continue to bank on our successful expansion, which will come partly through organic growth and partly through targeted acquisitions. Last year, as you know, we were successful in both fields – internally and externally.

And so it goes on: Currently we are setting up a new plant for Fluid Technology, which will serve automotive producers in a burgeoning market. Moreover, Russia will be the partner country for the Hanover Trade Fair this year. ContiTech has been active in the world’s largest nation for ten years and continues to this day to grow in this booming market.

Early March saw Vibration Control’s fifth local Research and Development Centre worldwide go on stream in China. It is staffed with engineers from the People’s Republic because they understand and are able to meet the cultural and technical needs of their compatriots better than anybody else. Benecke-Kaliko is also expanding its capacity in China. But in the emerging markets it is not only the automotive industry that is on the rise; demand for technologically sophisticated products is increasing in numerous other key industries as well. We are the specialist for solutions in the rubber and plastics industries.

When the industry trade fair gets underway this April in Hanover, ContiTech will be presenting its high-tech products, which enhance quality of life for people around the world. Its innovations will be exhibited under the motto “We care”. One week later we will be at the “bauma” 2013 construction fair, where we will again be showcasing our latest products. We will, of course, be taking part in important international trade shows as well.

I hope you enjoy reading all about our products and services for the automotive and other branches of industry.

Best regards

Heinz-Gerhard Wente
Head of ContiTech division
Life around us

Resources unlimited
Russia is the largest country in the world by far and has an inexhaustible wealth of mineral oil, natural gas and arable land. Some 6,300 companies from Germany alone are offering their goods and services in this growing market. One of them is ContiTech, which has been active in Russia for more than ten years.

Moscow – the heart of Russia
Sergey Tretiakov has been managing ContiTech’s office in Russia since 2004. In leading his team, he sets great store by the Russian tradition of “sticking together”. Their joint success demonstrates the value of this motto, revenues having seen a five-fold increase over the last few years under Sergey Tretiakov and his team.

It’s taking part that counts
7 February 2014 sees the start of the 22nd Winter Olympic Games in Sochi. To get everything running smoothly in time for the big day, billions of euros are being invested in infrastructure and transport. Major corporations such as Siemens, Doppelmayr, Otis and ContiTech are involved in numerous projects to help Sochi get set for the Olympics.

Yes, we care!
Key technologies to help feed the world, keep us mobile and save resources and energy are among the top priorities facing the global plant and machine construction industry. ContiTech products make a sustainable contribution to agriculture and conveyor technologies in the recycling industry and elsewhere.
**Future**

**Future mobility rides on two wheels**
From electrically powered motorcycles to mopeds, scooters and pedelecs, bicycles with electric drives are becoming more and more important all the time. The ContiTech Power Transmission Group has developed a high-performance drive system for tomorrow’s mobility: the CONTI® DRIVE SYSTEM. 

**Strategic innovative power for Asia**
With a Research and Development Centre opening in China, ContiTech Vibration Control is developing its skills base and recruiting local engineers. The team at this new powerhouse of innovation will collaborate with Asian-based vehicle producers to develop mount and vibration technologies.

**Technology**

**In the desert without water**
ContiTech has long been promoting waterless offset printing. As well as being a member of the European Waterless Printing Association, it produces blankets for a printing method that is spreading across the world’s deserts. Since 2012 Dubai-based Al Nisr Publishing has been operating a resource-friendly, waterless technique.

**Et cetera**

**The latest from the world of ContiTech**
Innovations for the “bauma” trade fair 2013

**Imprint**
Resources unlimited

The breadbasket of the world, Russia, is reaping the benefits of its huge reserves of natural resources.
It is the largest country in the world by far, covering an area of some 17.1 million square kilometres. Russia is almost 50 times larger than Germany and has at its disposal an inexhaustible wealth of mineral oil and natural gas. It is also described as the world’s breadbasket.

Anyone crossing Russia from west to east will travel through 11 time zones and three climate zones. And yet this vast country is home to “just” 140 million people. By way of comparison, China has 1.3 billion – all living together in half the amount of space.

Along with Brazil, India, Korea, Turkey and China, Russia is one of the six strongest-growing economies in the world. Since joining the World Trade Organisation (WTO) it has opened up to the West even further, paving the way for its economy to develop successfully. Some 6,300 businesses from Germany alone are already selling their goods and services in this country’s burgeoning market, having invested well over €21 billion there to date.

ContiTech has been running an office in Moscow since as early as 2002. The office focuses primarily on the sale and distribution of air springs and power systems, original equipment and aftermarket products and services. “In setting ourselves up here in Russia, we followed exactly the same principle as we did in China,” says Frank Stünkel head of international sales with ContiTech for the past year. “Right now, we are setting the course for our next strategic step and developing our office into a powerful sales organisation. Moreover, as a partner for companies in and from Russia, we are active in direct proximity to our customers. We have our own production facilities and offer outstanding service in all our business units.”

**Top sellers: foreign car brands made in Russia**

The high-quality interior materials specialist Benecke-Kaliko is also planning to recruit a new employee to work in the subsidiary. American, European and Asian automakers are collaborating with partner companies to produce more and more vehicles in Russia. Foreign models are extremely popular, with annual sales totalling about 1.8 million units. Lada, Chevrolet, Hyundai, Renault-Nissan, Ford and Volkswagen are among the most sought-after passenger vehicles in the Russian market.

Late 2013 will see ContiTech Fluid Technology launch a new operation for air-conditioning and power steering hoses based in the town of Kaluga. “After taking over the automotive air-conditioning business of America’s Parker Hannifin Corporation, we are now developing our global presence further and broadening our customer base here in Russia and elsewhere,” explains Matthias Schönberg, director of ContiTech Fluid Technology. This will allow ContiTech to supply components to Renault-Dacia and AutoVaz (Lada) directly on location. It will also generate 160 new jobs in Kaluga.

The burgeoning growth of the automotive industry – in which Russia claims to invest some €5 billion by 2015 – also means major plant and machinery will be needed. Being either imported or assembled locally, much of the equipment concerned will incorporate high-tech products by ContiTech to ensure reliable service. (See the article entitled “Yes, we care!” on page 16 in this issue).

**Sporting events stimulate Russia’s industry**

Germany’s bestselling exports to Russia are machines. These often incorporate drive belts, air springs, membranes and bearings produced by various ContiTech business units. The investment climate is positive at the moment, with the Russian state pouring hundreds of millions of euros into the development of its infrastructure and industry and the enhancement of its agricultural sector. Sporting events such as the Winter Olympics, Formula One and world championship football are heightening the good business atmosphere as Russia seeks to present itself from its best side to millions of spectators around the world over the next few years. As a partner of the Hanover Trade Fair, HANNOVER MESSE, Russia will this year go out of its way to put on a good show and raise awareness of its attractiveness as a base for businesses from around the world.
Sergey Tretiakov (left), director of the ContiTech office in Moscow, discusses the strategic development of the sales organisation with Frank Stunkel, head of international sales with ContiTech.
The Russian state railway is expanding the national rail network at full speed. A major partner on this journey is Siemens, which has already supplied large numbers of trains and still has plenty more on its order books. Equipped with ContiTech air springs, these offer passengers a suitable degree of comfort. One of the many projects currently in progress is the high-speed “Sapsan”, or “Peregrine Falcon” to give it its English name, with thousands more new trains set to join the inventory by 2018.

Other beneficiaries of Russia’s prospering economy include manufacturers of construction and construction material machines. Many of them are ContiTech customers, including Caterpillar, Liebherr and John Deere, whose plant is used in the construction of roads and housing as well as new commercial properties.

Elastomer Coatings joins forces with partner Oktoprint

Russia’s printing industry is also rolling out positive figures. As a specialist for printing blankets, ContiTech Elastomer Coatings launched a partnership with the subsidiary Oktoprint ten years ago in Moscow. Since that time, business has developed extremely well, with a cutting and railing centre for printing blankets up and running. Annual output of printing blankets totals some 85,000 square meters.

“We are a popular business partner in Russia because for us quality and efficiency are some of the key parameters determining customer satisfaction,” says Oktoprint Area Manager Oleg Krasnoborov.

Conveyor technologies for Russia’s natural reserves

Russia harbours major supplies of mineral oil and natural gas. This fact is well-known around the world, with large quantities being sold to the West. It also has extensive supplies of peat and coal. Many of these resources are deposited close to the surface, although some are up to two kilometres beneath it. By 2015, Russia will have 55 new storage plants in addition, and with annual output of black gold totalling some 630 million tonnes a year, the country has enough resources to last several centuries. Bringing them to the surface efficiently and transporting them onward is often a job for ContiTech Conveyor Belt Group technologies.

“**In Russia we are currently developing our office into a powerful sales organisation.**”

Frank Stünkel,
head of international sales at ContiTech

German agricultural technology – homegrown

When it comes to agricultural technology, Russia has quite some catching up to do. It currently sources about 60 percent of the machines and systems it needs from abroad because it is keen to work with high-performance, energy-efficient technologies that require the minimum of maintenance.

One German producer of combine harvesters, Claas, has been running a manufacturing operation in the Russian town of Krasnodar for the past eight years. Other producers are set to follow suit. The Russian truck producer Kamaz, for example, and Case New Holland (CNH), which is part of the Fiat group, decided in 2010 to set up a joint manufacturing operation for tractors, combine harvesters and construction vehicles in Russia.

Here, too, ContiTech is in on the action, delivering the individual products required to support the most climate-friendly, efficient harvesting possible for this breadbasket of the world – and for the global population. (See also the article entitled “Yes, we care!” on page 16 of this edition.)

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Sergey Tretiakov, sergey.tretiakov@contitech.ru
The view from Sergey Tretiakov’s eighth-floor office of the old city centre is spectacular. It’s also popular with customers, who enjoy coming here to meet the ContiTech team. The team has been under a single roof with their colleagues from Continental for the past year and are currently looking to capitalise even more strongly on synergies than previously. Since 2004, ContiTech’s office in Russia has been under the management of Sergey Tretiakov – who prefers to talk about “us”, “we” and “our team” when he speaks of his office’s achievements. Over the last nine years, the fortunes of his unit have also been heavily influenced by assistant Elena Zavyalova – with positive results.

Aged 40, academic Sergey Tretiakov hails from the town of Voronezh, a Russian cultural centre located 500 km south of Moscow. Home to more than one million people, Voronezh is a hotbed of education with 30 colleges and universities to its name. It was here that the ContiTech manager studied English and French at the state university before going on to work as a lecturer. The next step on his career ladder took him to a German company, where he gained experience in imports, customs and IT. In 1999 he finally came to Moscow, where he started working for Osram’s automotive lighting unit. He later discovered ContiTech, where he became the ideal manager to run its offices and build up a powerful network for the company.

When managing his team, Sergey Tretiakov stands by the Russian tradition of “sticking together”. In a city with 18 million inhabitants where business is developing at breakneck speed, this philosophy has proved to be of great merit. One of the first things he does each day is bid every individual team member good morning and discuss pressing issues with them in person.

Everybody, he says, is keen to learn quickly and use new technologies to encourage positive market development and a better quality of life. The staff on his ContiTech team have been sharing their outstanding expertise and products for Russian industry with customers and business partners for more than a decade.

“Since launching operations here in Russia, our team has achieved so much,” Sergey Tretiakov explains, pointing to the development curve on his chart. This documents impressively the fivefold increase in turnover that has been attained in the last few years. The spare parts business for air springs and V-belts has seen particularly strong growth.

With the exception of the dip that followed the automotive and financial crisis of 2009, business has been flourishing, Sergey Tretiakov continues.

ContiTech Air Springs Systems is pleased to hold a substantial market share of at the moment. Equally successful is the power systems business. “In 2012 our power systems business did better than us in terms of sales for the first time,” he says, smiling at his colleagues Alexey Prusakov and Alexander Steklenev, who represent the Power Transmission Group.

Alongside these multifaceted and highly important business activities, the team has also succeeded in building up a very good dealer network. Customers are placing their trust in the quality and reliability of ContiTech products. “We currently supply the top names in Russian industry,” says international head of sales Frank Stünkel, convinced the team’s success will continue under the management of Sergey Tretiakov. Moreover, to make sure the company continues attracting qualified young people in years to come, the head of the Moscow office makes personal appearances supporting the lecturer at the renowned MAMI University for Engineering and Technical Studies.

When the time comes to relax from his professional commitments in this vast land, Sergey Tretiakov enjoys fishing. He does so out in the tundra or in one of the large lakes in the region. But his greatest pleasure of all is his family, including his daughter and his son, who is in the middle of his studies.

Pointing at a map, Sergey Tretiakov indicates where the next greatest challenges for Russia lie: the 2014 Olympic Games in Sochi and the football world championship in 2018. These sporting events will give the country another boost, stimulating growth in demand for high-tech products by ContiTech.
Winter 2013 has already seen numerous sporting events take place in Sochi, such as the Fédération Internationale de Ski (FIS) Cross-Country Ski World Cup.
It’s taking part that counts

Winter Olympic Games on the Russian Riviera

When Pierre de Frédy, Baron de Coubertin, first expressed his Olympic ideal more than 100 years ago, he would probably never have imagined that organising the Games could be quite as complex as it is now. Nor would he have anticipated the number of people involved.

When the 22nd Winter Olympic Games commence on 7 February 2014, the eyes of the world will for a good two weeks be on the Russian town of Sochi, situated on the edge of the Black Sea. From Bjørn Daehlie, Anni Friesinger and Jens Weißflog to Georg Hackl and of course the unforgettable Toni Sailer from Kitzbühel, Austria, the names of these top athletes serve as a reminder of just some of the excitement and high drama seen in competitions of years gone by. They also whet our appetites for more. Be it the winter of 2014 or the summer of 2016, this superlative sports tournament has the entire world glued to their televisions as the skiers, ski jumpers, ice skaters, curlers and bi-athletes perform. Moreover, 2014 will see a host of sports men and women competing in new disciplines that are being included in the Olympics for the very first time. With teams from all four corners of the earth commanding the attention of their compatriots in the arena virtually every day, not even World Championship football can match the spectacle that is the Olympic Games.

Unsurprisingly, competition to be nominated as the host city is tough. Expectations among the nations and cities bidding to organise this mega-event are high. Political and economic reputations are at stake, as hosting the Games would allow bidder nations to showcase themselves and their people. The Olympic Games are quite simply big business. Their finances have long been about far more than remuneration, costs and returns. Today, hosting the Olympic Games is about sustainable sporting, social, business and ecological development. It is also about the opportunity to be the focus of the world’s attention and reap positive recognition around the globe.

Past host cities and venues have become resonant names in the world of winter sports: Innsbruck, Cortina d’Ampezzo, Nagano and Quebec, to name just a few examples. But locating the host of the upcoming Games on a map of the world can be rather tricky. That’s why cities such as Pyeongchang, Almaty, Borjomi and Sochi have been doing everything in their power to gain...
international attention. Even the Russian Prime Minister is said to have personally committed himself to supporting the bid by his favourite seaside town of Sochi. After all, what counts is taking part – even if, as some critics claim, the multi-billion-dollar investments in new sports venues and their associated infrastructure are too high and insufficiently sustainable for a one-off event.

The organisers, on the other hand, are countering these claims with their concepts for sustainable use of sporting venues and infrastructure development in particular. “Gateway to the Future” was the motto under which Sochi won the votes of the 103 eligible members of the IOC, the International Olympic Committee.

Against this background, the Fisht Olympic Stadium, which will provide the backdrop for the opening closing ceremonies, will also be on the list of the venues hosting the Football World Championship four years later, in 2018.

Other purpose-built structures, meanwhile, can be dismantled after the Games and rebuilt elsewhere to serve another city that might need them. Examples include the Ice Cube Curling Center and the Iceberg Skating Palace. In this respect, the sustainability of the concept does indeed make sense. Moreover, being on the same line of latitude as Nice in southern France, Sochi is a subtropical city, so maintaining a large area of ice here over the longer term would be ecologically questionable; transferring it to another location would fit well with the sustainable concept. Equally suitable is the proximity of the other sporting venues, even though these are situated in a completely different climate zone – in the Caucasus at an altitude of 600 metres. The Caucasus forms a natural border to Siberia and deservedly has a reputation for being icy. All in all, then, the 2014 Winter Olympic Games will have two centres: the Sochi Olympic Park on the coast of the Black Sea and Krasnaya Polyana up in the mountains, which will host snow, bob and skeleton events. Moreover, in Krasnaya Polyana plans are afoot to build an exclusive winter sports venue that will continue to attract tourists after the Olympic Games are over. After the visitors to the mega-event have left, bathers enjoying a seaside holiday in Sochi will be able to get from the sunny Russian Riviera to snowy ski resorts in less than an hour, so the figures say. Skiing in the mornings and bathing in the afternoons make for an attractive combination that is difficult to find anywhere else in the world. It also elevates this Russian city to the ranks of luxury, paradise holiday locations: Hawaii, Cote d’Azur, Sochi. This represents a significant boost for Russia, which is also fighting to take a leading position in global business. In its efforts to succeed it is breaking new ground and developing unusual branches of industry such as tourism in the process.

To ensure Sochi achieves its goals, investments worth billions are being made in new modes of transport and infrastructure. The entire operation is a tour de force that is attracting not only the world’s attention but also its commitment. Numerous projects are being contracted out to long-established, highly experienced major corporations. German and Austrian businesses, such as Siemens, Doppelmayr, Otis and ContiTech, are among the top contenders.

Just like anywhere else in the world, the south of Russia values German quality very highly, and when it comes to the list of top business partners, Baron de Coubertin’s credo once again applies: It’s taking part that counts.
ContiTech Air Spring Systems: keeping things moving at the 2014 Winter Olympic Games

From buses to trains to cable cars – when the sporting mega-event gets under way in Sochi, an array of transport options will keep millions of people on the move. Transport planners set to work early to consider how visitors to the Games would get safely and comfortably to their events. Today their efforts are supporting one of the great prestige projects in the country that will also be hosting the World Cup in 2018.

As early as 2009, Russian Railways (RZD) ordered 38 electrically powered regional trains for Sochi. One year later it placed another order, this time for 16 Desiro RUS trains. These will be used in other regions of the country. At 4.85 metres high and 3.48 metres wide, the Desiro RUS is truly colossal and able to withstand wind and weather. It has now become affectionately known as “Lastochka”, or “Little Swallow”. After its highly positive experiences with the Velaro Russia trains, also known as the “SAP-SAN”, or “Peregrine Falcon” in English (and capable of operating in temperatures as low as minus 50 degrees centigrade), Russian Railways has once again opted for a solution equipped with springs by ContiTech Air Spring Systems. As state-of-the-art pieces of technology, these are capable of handling speeds of up to 160 kilometres per hour, making for trouble-free, reliable, comfortable travel even at extreme temperatures. The first trains went into operation ahead of schedule in January 2013.

Russia’s vast landscape is criss-crossed by over 88,000 kilometres of rail network. Around one billion passengers use the trains every year, and when the Lastochka takes to the rails in the not-too-distant future, it will form part of Russian Railways’ far-reaching programme of modernisations – a project that may even include an order for 1,200 Desiro RUS carriages.

ContiTech Air Spring Systems also supports operations of 3S cable cars by Doppelmayr with temperature-resistant air springs that keep holidaymakers comfortable and safe. And last but not least, discussions are also under way to equip 100 commuter buses with airsprings by ContiTech.

All in all, ContiTech will – quite literally – be a major mover when the Sochi Winter Olympics get under way.
Yes, we care!

ContiTech products make a sustainable contribution to plant and machine engineering for the supply and recycling industries.
Key technologies for food production and mobility as well as resource and energy efficiency are among the most pressing challenges facing the global plant and machine engineering industry today. When it comes to enhancing the quality of life for people around the world with climate and eco-friendly solutions, this sector offers more than 20,000 different products from 32 specialist branches of industry.

With almost 1,000,000 employees working in plant and machine engineering, Germany is the world leader in this field. In 2011 alone 6,200 or more German businesses generated revenues of more than €200 billion. Tens of billions of euros are being invested in developing new and enhanced products.

“We are fully aware of just how important this forward-looking branch of industry is,” says Heinz-Gerhard Wente, Chairman of ContiTech AG, Hanover, Germany. “On every continent major industries such as agricultural machinery, drive technology, conveyor systems, printing and paper machines, and a host of other plant and equipment businesses play a significant role. Our products make a sustainable contribution by bringing the research and development skills needed into all the important markets.” The eight business units of the rubber and plastics specialist ContiTech work with a range of partners on countless innovations and are represented across Europe, the Americas and Asia.

A study by Roland Berger Strategy reveals that demand for and production of plant and machinery is shifting towards the emerging economies. Leading the way is China, which is already the world champion in terms of machine engineering. All the while, the megatrend towards heightened environmental awareness continues as producers commit to “Going green”.

Top topic: feeding the world

There’s one thing every country in the world has in common: They all need a secure food supply. With 193 member states, the United Nations Food and Agriculture Organisation (FAO) is playing a leading role in ensuring these global needs are met. Its efforts focus not only on problem states but also on the world’s breadbaskets. When it comes to securing food supplies, a key role will fall to the largest country, Russia. As the global population expands to an estimated 9 billion by the year 2050, the 17 million square kilometres that make up this vast country represent a major opportunity. With plenty of space for cultivating crops such as grain, potatoes and beet, Russia can help resolve one of the most important issues facing humankind.

Cultivating the world’s arable land will be all-important in every continent and rely heavily on state-of-the-art agricultural machinery, be it mobile or stationary. From tilling the soil to sowing seed, irrigating fields, tending the land and harvesting grain, vegetables and fruits; from breeding and raising livestock to animal farming – none of these things would be possible without the high-tech systems and machines in use today: tractors, seed drills or planting equipment, fertiliser spreaders, sprayers, harvesters or feeders. In 2011 worldwide production of agricultural machinery and tractors was estimated to total some €80 billion. Major producers include John Deere (USA), Case New Holland (Italy), AGCO (USA) and Claas (Germany). Together, these companies hold a combined market share of 40 percent. Other large, medium-sized and small enterprises are also active in the world’s markets, supplying highly sophisticated specialist machineries. Many producers of agricultural machinery have placed their trust in the wide-ranging skills and expertise of ContiTech. With development and eco-friendly production work ongoing at more than 80 sites and facilities around the world, ContiTech provides cutting-edge solutions that are energy-efficient, low-maintenance and safe to use.
As a development partner for recycling and sorting systems, ContiTech is making an important contribution to materials regeneration, for example with conveyor belts.
ContiTech Power Transmission Group provides a variety of high-quality, high-tech drive belts, the CONTI-V® VARISPEED POWER among them. This variable speed belt is suitable for use in the variator drives of many agricultural machines.

ContiTech has also come up with an ideal alternative to chain drives in the shape of a heavy-duty polyurethane belt incorporating a carbon fibre tension member. Known as the CONTI® SYNCHROCHAIN CARBON belt, this transmits extreme loads with absolute reliability and only negligible stretching – perfect for use in combine harvesters.

ContiTech Fluid Technology is the creator of particularly eco-friendly hose technologies. One example is its SCR hoses. As diesel engines become subject to ever tougher emissions restrictions, SCR (Selective Catalytic Reduction) technology purifies exhaust emissions by using a urea solution to convert harmful nitric oxides into harmless water vapour and natural nitrogen. Key components in the process are heatable, high-performance hoses by ContiTech Fluid Technology, which safely transport AdBlue® urea solution to where it is needed. This helps reduce nitric oxide emissions by as much as 80 percent and soot particle emissions by up to 40 percent. It cuts diesel consumption by as much as 8 percent.

Now in their second generation, ContiTech Fluid Technology’s SCR hoses have been extended to include heated quick connectors with enhanced contacts. These prevent the hose and its contest from freezing to ensure the system remains fully functional throughout.

For tractor producer Fendt, which makes the 500 Vario tractor, ContiTech Fluid Technology has developed hydraulic hoses for safe power transmission. Able to withstand pressures of 270 bars, these allow cutting-edge tractors with more than 22 connections front and rear to handle up to 8 tonnes in weight. Fluid Technology has also developed steering, braking system and fuel hoses. All in all, a 500 Vario tractor incorporates around three dozen different hoses.

ContiTech Conveyor Belt Group is another important partner in state-of-the-art agriculture. It supplies leading producers with highly durable round-baler belts for hay and straw bale compressors. These offer a host of advantages: Since only a few are needed at any time, wear and tear is kept to a minimum. Moreover, special fabric inlays prevent stretching for superlative tear-resistance and durability.
ContiTech Vibration Control provides customised solutions for managing vibrations in agricultural machinery. Its product range includes cone and hydro mounts for tractor and machinery bearings, and bushes to balance out torque movements and isolate unwanted vibrations. This is particularly important for the safety and comfort of tractor and machine operators. Active and passive absorbers by ContiTech Vibration Control make health and safety compliance easy – and can even be retrofitted.

Benecke-Kaliko is the specialist for vehicle interior materials like those in the operator cabs of agricultural machinery. Its Yorn® foam foil, for example, is used in side panels. Benecke-Kaliko’s design and development skills produce harmonious colour and graining schemes for cab interiors. Developed in collaboration with the customer, these can combine even the most diverse materials to perfect visual effect.

ContiTech Air Spring Systems is a major provider of air springs for mobile agricultural technologies. From suspensions, rotating mulchers and cutter bars to tractor cabs, field choppers and seats, good damping is essential across the board. After all, travel comfort for drivers and operators and safe transportation of sensitive goods are vital – not only on the roads but also on farms.

When it comes to stationary machines that support the transportation and distribution of grain and feeds, Air Spring Systems is also in on the action. Its air actuators have one key advantage: They work with compressed air. Unlike hydraulic oil, this presents no risk to health and hygiene. Moreover, air actuators by ContiTech Air Spring Systems are corrosion and friction-free, highly resistant and easy to maintain.
A highly sought-after renewable raw material, rubber is sourced from caoutchouc trees (Hevea brasiliensis).
“We care” – ContiTech’s motto at the Hanover Trade Fair 2013

“We care about high-tech solutions that will help the people of this Earth lead better lives in as many areas as possible,” says Jens Fechner, director market communications at ContiTech, describing the company’s contribution to other important machinery and systems in key industries. “This year, our trade fair stand at the international technology event Hanover Trade Fair will run under the motto “We care!” – because our primary focus is always on sustainable, flexible high-tech solutions for all the relevant issues around supplying and disposing of goods and materials.”

One key industry in which ContiTech is involved is mining. From iron ore for the steel industry to rare earths for the electronics industry and diamonds – once extracted from the earth, raw materials travel along multiple conveyor belts spanning thousands of kilometres of rough terrain. As well as saving – and even producing – significant amounts of energy, these systems are low in CO₂ emissions. ContiTech also produces high-tech conveyor hoses. Created by its Dunlop Oil & Marine business unit, these are used on mining ships that dredge the ocean floor for precious raw materials, often in rough seas.

Highly resilient conveyor systems by ContiTech are also at work when it comes to obtaining fossil fuels such as the coal, mineral oil and natural gas we use to heat our houses and keep our vehicles and industries running. Moreover, ContiTech Elastomer Coatings supplies gas holder diaphragms with a virtually unlimited spectrum of applications. Meanwhile, in the renewable energy industry, projects like Pelamis, which generates energy from wave power, capitalise on ContiTech’s specialist expertise. In solar energy production, arrays with warm water hoses and solar tanks by ContiTech supply hot water to industrial systems and major agricultural operations – all of it from renewable energy sources. And in wind energy production ContiTech Vibration Control helps keep rotors running smoothly. Moreover, weighty turbines in offshore windfarms keep a firm footing on the ocean floor thanks to anti-scour mats by the Conveyor Belt Group.

Another important cornerstone in improving the quality of life of people around the world is the construction of roads, tunnels and bridges as well as industrial, residential and commercial buildings. Many construction machines, cranes, heavy goods vehicles, tractors, tunnel-drilling and cement machines are equipped with specially developed products by ContiTech. For example MEGI® and SCHWINGMETALL® mounting elements by ContiTech Vibration Control counter unwanted vibrations.

When it comes to the construction of industrial machinery, the Power Transmission Group offers high-performance, highly resilient belts that can handle broad temperature variations and a range of media. Two essential milestones in high-performance machinery are the CONTI® SYNCHROCHAIN CARBON and the CONTI® SYNCHROFORCE EXTREME CARBON. These two products incorporate XXL air actuators by ContiTech Air Spring Systems to make lifting and pressing heavy loads easy. They are used in lift tables, rolls and presses.

Meanwhile, more and more printing presses are using climate-neutral printing blankets. Produced by ContiTech Elastomer Coatings, these offer several key advantages: As well as being manufactured in eco-friendly processes, they work entirely without solvents. ContiTech Elastomer Coatings is also responsible for Conti® Thermo Protect, a reliable, easy-to-use insulation material. Ideal for use in industrial systems, Conti® Thermo Protect helps keep hot water and steam up to temperature as it passes along hose lines ready to be used in production. It also saves manufacturers large sums of money by reducing energy costs.
Not to be forgotten is the transportation of goods and freight around the globe to secure supplies. Ships, trucks and cars are equipped with vibration dampers by ContiTech Vibration Control to ensure safety and comfort. In liquefied natural gas tankers, special hoses by Fluid Technology withstand even the most aggressive substances. And in the passenger compartments and cabs of cars and trucks, health-friendly materials by ContiTech’s Benecke-Kaliko subsidiary are pleasant to the touch. In developing eco-friendly interior materials such as Acella® Eco natural, Benecke-Kaliko has been quick to comply with environment regulations in countries such as China.

As the importance of individual mobility continues to increase, low-emissions, climate-friendly public transport solutions for short and long distances are becoming increasingly significant. As well as providing access to education, culture, employment and recreational opportunities, solutions such as urban cable cars, buses and local, long-distance and metro trains are especially safe and comfortable to use, thanks to products by ContiTech Air Spring Systems. Developed in conjunction with partners from around the world, such as Siemens, Bombardier, Alstom, Doppelmayr and Yutong, these products operate even in extreme temperatures. They also have long service lives and require little or no maintenance.

With more than 140 years of experience in rubber and a wealth of expertise in plastics technologies, ContiTech offers the right solutions for a wide range of needs. Its Compounding Technology unit has a variety of special compounds from which the most appropriate are selected to suit the customer’s requirements as best possible. The compound “recipe book” contains countless varieties of patent-protected formulae that are specific to individual applications.

Recycling: a second life for valuable materials
Last but not least, the end of every product cycle involves the disposal of waste and refuse. This is where the recycling industry comes in -
ContiTech at Hanover Trade Fair

From 8 to 12 April 2013 the Hanover Trade Fair will be presenting innovations, developments and key technologies from the world of industry, all under the title “Integrated Industry”. ContiTech will be exhibiting its forward-looking projects and solutions for plant and machine engineering in Hall 6, stand F 18. With “We care!” as its motto, the display on some 500 square metres of exhibition space will include future materials based on rubber and plastics. This year, ContiTech will also be running a stand focusing purely on drive technologies at the leading Motion, Drive & Automation trade fair. Located in Hall 25, stand B 23, the exhibit will present drive solutions for plant and machine engineering and e-bikes as well as components for isolating vibrations, and also hoses.

because environmental compatibility is all about ensuring materials continue to be used.

More often than not recyclable materials such as plastic bottles, aluminium, tin cans and so on are fed into industrial sorting machines on TransConti® conveyor belts. Manufactured by the ContiTech Conveyor Belt Group, these carry materials to be divided automatically into plastics and metals. Once sorted, the materials can return to the industrial and production cycle to start a new product career.

All in all, ContiTech’s commitments in every branch and field of industry help realise solutions that bring extra quality of life and peace of mind to people around the world. ContiTech’s technological expertise makes it the leader in the field.
Future mobility rides on two wheels

Electrically powered bicycles are good for the environment and beneficial to your health. They also help prevent congestion on the roads.

On hearing the term “future mobility”, most people immediately think of electric cars. But conquering gridlock in megacity centres involves much, much more – especially when it comes to finding environmentally friendly solutions that are easy on resources. That’s why a new, contemporary mode of transport is emerging: the electrically powered bicycle. Around the world, the growing trend towards the “E-2Wheelers” is focusing not only on motorcycles, mopeds and scooters but also on electrically powered pedelecs.

“We already began to realise many years ago that people in big cities would be looking for a comfortable, eco-friendly two-wheeled solution,” explains Rolf Marwede, head of the Polyurethane Belts segment with the drive belt specialist ContiTech Power Transmission Group in Hanover. These solutions include the high-performance specialist CONTI® SYNCHROCHAIN timing belt for electric motorcycles and the heavy-duty special CONTI® SCOOTER XT timing belt for electric scooters. ContiTech’s customers in the bike segment, many of them long-standing, began to respond to the trend long ago and now require high-performance belts as essential components to drive their products reliably and safely.

Sales in the pedelec market are expected to grow significantly. The word “pedelec” stand for Pedal Electric Cycle and represents a solution that is becoming as popular with commuters as it is among senior citizens and tourists, who simply rent one while they are on holiday. The pedelec is ideal for getting around the city, but also for shopping or as a mini cargo carrier for small businesses. On trekking trips, it brings pleasure to young and old. Further market potential is developing among businesses and municipalities, which are complementing their classic vehicle fleets with a cost-efficient alternative in the shape of the e-bike for short trips. Many have already ordered them for their staff, as they are faster than cars and have none of the associated parking problems. They are also healthy, not only for their users but also for the environment.
The pedelec works on a very simple principle. Sensors determine how hard the user is pedalling and automatically provide appropriate support via an electric motor. Pedelecs typically reach a top speed of around 25 kilometres an hour, meaning helmets and registration plates are not needed – unlike classic E-bikes, which can travel at higher speeds of up to 50 kilometres an hour.

The system’s heavy-duty polyurethane toothed belt has a host of characteristics that make it a high-quality, eco-friendly alternative to the conventional cycle chain. Suitable adjectives to describe it include: light, clean, quiet, long-lasting, robust, bendable and low-maintenance. Consequently, bikers can look forward to a pleasant, gentle ride with outstanding power transmission. Being dirt-free, dry-running and free from traces of oil, the belt also helps keep clothing clean. In addition, its enhanced tooth profile, which is the work of development engineers in Dannenberg, Germany, ensures a high level of protection against jump-over, even at low initial tension. The belt is also suitable for operating backpedal braking systems.

In addition to the timing belt, two specially engineered sprockets keep the drive belt running smoothly. The distribution of frames to bicycle producers is the responsibility of Benchmark Drives.

“The bicycle industry is a globally expanding market that is becoming more and more technologically demanding all the time.”

Rolf Marwede, head of the Polyurethane Belts segment ContiTech Power Transmission Group, Hanover

“Working in conjunction with e-bike drive system manufacturer Benchmark Drives, based in Hofheim, Germany, engineers from the ContiTech Power Transmission Group have developed a high-performance drive system using a timing belt for bicycles, pedelecs and e-bikes. Known as the CONTI® DRIVE SYSTEM, this has a range of advantages to offer.

Contact: Rolf Marwede, rolf.marwede@ptg.contitech.de
CONTI® DRIVE SYSTEM

The ContiTech Power Transmission Group supplies high-performance drive systems for future mobility. The profile of its latest heavy-duty polyurethane tooth belt makes for the best possible protection against jump-over in pedelec drive systems.
Strategic innovative power for Asia

ContiTech Vibration Control is enhancing its innovative strength with home-grown engineers at its Chinese Research and Development Centre.

Engineers from ContiTech Vibration Control are to set new standards in the production of sample engine mounts.
Automotive producers around the world develop their cars in close collaboration with a circle of suppliers, most of whom operate from a local base. One of these recognised partners is ContiTech Vibration Control, a favoured supplier of vibration and mount technologies for new vehicle models in the USA, Europe and Asia. Lightweight engineering and increased functionality are among the innovations finding their way into new vehicles from the earliest stages of development.

Initially ContiTech Vibration Control carried out its research and development work exclusively in Germany. But over the last ten years it has gradually established new Research and Development Centres in North and South America as well as Eastern Europe. “In early March we introduced another of our innovative powerhouses into operation, this time in our Chinese plant in Changshu. Changshu is the strategic centrepiece for all of ContiTech’s activities for the Asian market,” says the managing director of Vibration Control, Kai Uwe Frühauf.

It is from the facility at Changshu that ContiTech takes care of its major customers in the region. These include Geely, the Great Wall Motor Company, General Motors and Shanghai Volkswagen, to whom it supplies innovative mount and vibration control solutions. Changshu is also the hub that serves the Asian markets of Korea, Japan, China and India.

Almost three years ago ContiTech Vibration Control also received an order from the newly established Chinese automaker Qoros, which invited it to join collaborations on a central platform for a new auto brand of the same name. Development work on the engine mounts required for the project began in Hanover, but the innovations...
The ContiTech Vibration Control team in Changshu: By the end of this year the new Research and Development Centre will employ 30 engineers.
were subsequently tested and completed by Chinese engineers in Changshu. "This order provided the final incentive for us to build up our own development centre and employ local engineers recruited directly on location," says Kai Uwe Frühauf describing the reasons for this strategic decision to develop the company’s in-house research and development skills in Asia’s most important automotive market.

The Qoros was finally unveiled in early March 2013 as the world looked on at the Geneva Auto Show – and it met with a positive reception. The Qoros’ enhanced interior is a genuine a well-being zone thanks to its Yorn® foil foam, created by ContiTech’s Benecke-Kaliko business unit. Benecke-Kaliko is China’s market leader for high-quality, health-friendly, vapour-free interior materials.

ContiTech Vibration Control now has at its disposal a worldwide network of resources. Working on the global platform for a new auto brand, the business unit is able to adapt to the needs of local customers at all important locations quickly, precisely and with expertise, meeting their requirements 24 hours a day, round the clock.

Global standards for regional markets
Constructed in just eight months, ContiTech’s new Research and Development Centre in Changshu came at an investment of around €8 million euros. Its team have successfully met all the requirements for developing the Qoros engine mounts. "Our engineers, project and quality managers have done an excellent job of rising to our first challenge," says Jim Vance, director of the new Centre and its 25 Chinese engineers. The team are now responsible for producing sample engine mounts, shock absorbers, guide bushings and shock absorber mounts. They want to set new standards so that Vibration Control products bring noticeably higher quality to Chinese vehicles. Their top-quality engine mounts are customer developed for each application to reduce vibrations in the vehicle interior significantly under all vehicle operating conditions. "In our state-of-the-art test lab in Changshu we test the engine mounts until they offer peak comfort, safety and durability and fulfill the quality standards required of any vehicle in every respect, no matter what class it is," says Kai Uwe Frühauf.

"Our developers and project and quality managers have done an excellent job of rising to our first challenge."

Jim Vance, R&D Manager at ContiTech Vibration Control, Changshu

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In the desert without water

Dubai’s Gulf News is produced using waterless offset printing methods and printing blankets by ContiTech

Searing heat, unending dryness, negligible precipitation. In the middle of the desert, careful use of water is vital – because out here every drop counts. That’s why Al Nisr Publishing LLC produces publications like its English language daily, the Gulf News, by the most eco-friendly method possible: waterless offset printing.

Al Nisr Publishing LLC is located some 60 kilometres from the city of Dubai in the United Arab Emirates. Since last summer it has been producing the Gulf News on a Cortina hybrid system made by Koenig & Bauer, a leading printing press manufacturer based in Würzburg, Germany. When it comes to the use of waterless printing methods from Europe, Al Nisr is seen as the Middle East’s regional trailblazer. For publishing and print houses in desert states, waterless technology is a worthwhile investment: As well as saving costs, it helps protect the environment. Moreover, with Koenig & Bauer sourcing its original equipment from ContiTech for several decades now, Elastomer Coatings’ specially developed waterless printing blankets are also in action out here in this arid landscape.

Pressing for eco-friendly printing

Waterless offset printing manages without using water as a fountain solution to keep non-printing areas free from ink. Unlike conventional offset methods, it instead requires special silicone-covered plate cylinder and special inks. Being something of a niche product, these are still slightly more expensive than conventional offset materials and equipment at present. “The higher costs involved continue even today to make it difficult for some printers to switch to waterless methods. But waterless offset printing offers a whole series of advantages in terms of efficiency, environmental impact and quality. As a producer of metal-based printing blankets for waterless offset printing, we at ContiTech are very committed to this area,” says Markus Gnass, head of Metal Printing Blankets at ContiTech Elastomer Coatings. “We are on all the committees involved in enhancing this technology, and we organise and sponsor workshops. Our key priority is always to present to printers an environmentally friendly printing process that manages entirely without dampeners. We also want to help the broader public understand the other advantages of this technique too. It goes without saying that customers opting to switch to waterless methods on the KBA Cortina press will continue to benefit from our support as they optimise their processes.”

As a member of the European Waterless Printing Association (EWPA), ContiTech Elastomer Coatings helps promote research and development work on waterless offset printing to protect the environment by eliminating dampeners from the printing process. Printers converting to waterless techniques can save on average 800,000 litres of water per year – the equivalent of 5,700 bathtubs full. They also emit about 8,000 tonnes less CO₂, which equates roughly to the annual output of 800 people. Moreover, as well as using fewer dampener additives, they save cleaning agents and cleaning rags and consequently cut further emissions of harmful VOCs.

A long service life

Hand-made at the facility in Northeim, ContiTech printing blankets are customised to suit end users’ systems. They are then sent out around the world – just like the CONTI-AIR® Steel blanket used on the Koenig & Bauer Cortina printing machine in Dubai.

The virtues of printing blankets such as the CONTI-AIR® Steel blanket have long been apparent in waterless offset newspaper printing. As well as offering outstanding ink transfer, they ensure maximum precision and high print quality. Being of uniform thickness throughout, CONTI-AIR® metal printing blankets also allow even print pressure across their entire length and width. “Our metal printing blankets work on any system anywhere in the world. They have a long service life and offer outstanding print quality. Their relatively thick, compressible rubber layers are vulcanised onto the metal to make absolutely sure they stay in place and offer the longest possible service life,” Markus Gnass continues. Compared with conventional offset printing, the waterless process extends the life of rubber blankets by managing without dampeners. The CONTI-AIR® Steel series, then, is a sophisticated solution and even has eco-certification from the renowned Ostwestfalen-Lippe University of Applied Sciences.

Better eco-credentials, higher quality, greater efficiency

“By opting for waterless offset printing, Al Nasr Publishing manages without dampeners; it also offers further enhanced print quality. After just a few weeks of waterless production, the publishing house knew for sure that this investment has been worthwhile,” reports Michael Gnass. Waterless methods produce more vibrant colours and sharper details in contrast to “wet” methods, where dampeners compromise sharpness by “bloating” the print. ✯
In conventional "wet" offset printing, the image areas of the print cylinder are made to attract ink by being coated with a fat-attracting (lipophilic), water-repellent (hydrophobic) film. Non-printing (lipophilic) areas, on the other hand, have no such coating. They repel inks and instead attract water. When printing begins, the non-printing parts of the cylinder are first of all coated with a thin film of dampener. This ensures that when ink from the rollers reaches the print cylinder, it sticks only to the printing areas but not to the (dampened) non-printing parts. The turning roll first transfers the image to a rubber cylinder (i.e. a cylinder coated with a rubber blanket), which in turn transfers it onto the paper. Hence the term "offset" which implies an indirect printing method.

In waterless offset printing the silicone-covered plate cylinder has cells in its surface. These receive the ink in much the same way as happens in rotogravure, transferring it first onto the printing blanket and from there onto the paper.
Innovations for the “bauma” trade fair 2013

New solutions – from ContiTech
The 30th “bauma” trade fair for construction and mining machinery, vehicles and equipment will be open to the public in Munich from 15 to 21 April 2013. It will provide the backdrop for ContiTech to present its latest forward-looking conveyor technologies as well as its construction and mining equipment, vehicles and machinery.

Under the motto “First Choice”, the ContiTech Conveyor Belt Group will present several highlights. Its megapipes with outer diameters of 900 mm have double the capacity of closed conveyor systems and can even carry broken ore and bulky items. They will also be presenting a belt that is perfect for transporting hot materials and goods. Through the use of an innovative insulation layer in the belt construction, heat transmission is lowered by up to 40°C, while the total weight of the conveyor belts is significantly reduced.

Also on show at the “bauma” will be three extremely low-stretch EEP textile belts whose special steel cable construction gives them greater flexibility but keeps them resistant. Another innovation has emerged in adhesive technologies: instead of the two-component solution used until now, a single-component adhesive has been developed, called Conti Secur® PREMIUM.

Mining Technology Consulting from Clausthal-Zellerfeld will present its “MiningCalculator” computer programme in Munich. This provides invaluable support for mining operations by allowing the loading and transport combinations of concrete mining projects to be calculated and compared. Financial and environmental aspects are also factored in to ascertain the best possible transport option for the mining operation: trucks, conveyor systems or a combination of the two. ContiTech Conveyor Belt Group is the first company in the world to order the “MiningCalculator” for the benefit of its customers.

ContiTech Fluid Technology will be presenting its activities in its new segment of Commercial & Industrial Vehicles (CIV). This segment consolidates innovative hose technology expertise for commercial vehicles and industrial applications. Key new products will be the enhanced SCR hose system with quick-connectors and lightweight hydraulic solutions made from plastic. ContiTech Air Spring Systems is bringing single, double and triple convolution air isolators on to the market. These ATEX-certified products can be used in areas with a high risk of explosions. Last but not least: As a specialist for vibration and mount technologies, ContiTech Vibration Control will be showcasing ring and bushing elements at the bauma.

The full range of ContiTech’s eco-friendly and energy and cost-efficient products will be available for demonstration to specialists in Hall B2, stand 301/402.
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